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December 2, 2008

Industry View
In-Line

Clean Energy

Lowering Industry to In-Line; 2010 Policy a Catalyst

Downgrading industry to In-Line from Attractive.

We think 2009 will remain a challenge overall for the space due to access to financing, FX pressures, ASP declines, margin compression, and retrenchment in fossil fuel prices. That said, our long-term positive growth thesis, particularly on solar, is unchanged: We view current energy demand destruction as transitory, while long-term secular drivers — emergence, energy security, environment, and economics — remain intact. We expect a better long-term entry point in 3–6 months.

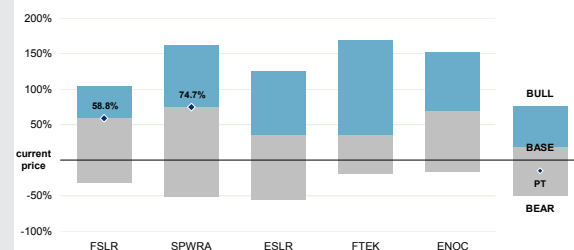
We remain Overweight industry leaders FSLR and SPWRA relative to the group, for three reasons we think are underappreciated by investors: 1) Both companies' solutions are nearly competitive with peak electricity prices in California. 2) The US is likely to announce aggressive new clean energy policies, disproportionately benefitting domestic leaders. 3) Both companies are benefiting from a flight to quality among project developers and lenders. We've also laid out a scenario framework for how investors should think about drivers and catalysts for the group in 2009.

Key debates: 1) *Policy.* We expect aggressive policy from the Obama administration to act as catalysts for the group, but implementation will take time; the stocks could be volatile as they react to positive news flow, then trade down on policy execution. 2) *Pricing.* ASP and margin pressure will likely persist, but developer IRRs and falling input costs should be a backstop. 3) *Parity.* Grid parity (when renewables are cost competitive with the grid) in the US is closer than many think, driven by US utilities and California policy.

Lowering price targets and most estimates. We are reducing our targets on FSLR (to \$175) and SPWRA (to \$50) and reducing estimates for ESLR, BIOF and PEIX.

Where's the risk? Macro, financing, and pricing pressures, coupled with slow policy realization, could cause even top names to trade flat or down near term.

Revising Our Risk-Reward Outlook



Source: FactSet, Morgan Stanley

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Investment Conclusion

Balanced risk-reward in clean energy stocks for 2009 as a group, but compelling risk-reward profiles for top names like FSLR and SPWRA. In our initiation of coverage report (October 16, 2007), we discussed the likelihood of the industry rightsizing in 2009–10. The credit crisis has accelerated that outcome, and we now face a period of rationalization and consolidation that will likely last well into 2009 and perhaps beyond. However, we expect to see significant growth again, spurred by US policy, as pricing stabilizes and predictable demand emerges. While we recommend investors remain attentive to near-term risks, we consider it increasingly likely that aggressive US policy discussions will act as a catalyst for the group in the next 90 days. That said, the stocks could be volatile as they react to positive news flow, then trade down as the market views policy execution as proceeding too slowly. We would expect a better long-term entry point in 3–6 months.

US policy will likely act as catalyst for clean energy, but implementation may take time. We expect the industry ultimately to benefit from favorable policy, specifically a national renewable electricity standard (RES) that would require utilities to produce a percentage of their power from renewables. A point of caution is that while headline policy discussions will act as catalysts for stocks, implementation could take time.

Depressed fossil fuel prices could offset positive policy. Consistent with our commodity analyst's view, we expect the focus to return to the supply side of the equation for fossil fuels when global growth returns. In the interim, we expect the demand issue to dominate well into 2009, keeping prices at depressed levels and focus away from clean energy solutions.

Macroeconomic headwinds continue to batter the industry. The prospects of a deep global recession, tight credit and foreign exchange risk, are significant challenges for clean energy stocks in 2009 and may force even the best names to continue to trade down near term.

Lowering Estimates and Ratings

We are lowering estimates for several companies under our coverage; we remain generally below consensus. We are also lowering our FSLR and SPWR price targets (see Exhibit 1).

We continue to believe that FSLR is the best stock to own in the solar space, but we see added risk to ASPs and margins should industry pricing correct by more than 35%. See page 7.

Going Forward

The critical factors to turn us bullish again on the group are progress on policy implementation, cost reductions in renewables, and higher traditional energy prices. With the economy and energy as the Obama Administration's stated first and second priorities, an energy stimulus package focused on "green job" creation and promoting renewable energy is the key development to watch for. Recent statements from the president-elect lead us to believe this is on the horizon, but implementation may not occur until mid-2009 at best. With clean energy stocks so highly correlated with traditional energy prices, a return to global growth and an accompanying uptick in traditional energy prices would likely have to accompany a sustained rally in clean energy stock prices.

Additional segments that could benefit include the cornucopia of smart grid technologies — advanced metering, demand response, grid stabilization, and efficiency. Access to transmission is the common roadblock that comes up in our conversations with utility executives and developers of renewable energy projects. We would expect an RES to be accompanied by transmission grid expansions and technological improvements at the distribution level.

Exhibit 1

Adjusting Estimates and Price Targets

| Company (Ticker, Price) | Base Case | | Rating | MS EPS Estimates (Old) | | MS EPS Estimates (New) | | Consensus EPS Estimates | | MS P/E Multiples | |
|----------------------------------|-----------|-------|--------------|------------------------|----------|------------------------|----------|-------------------------|----------|------------------|-------|
| | New | Prior | | 2009e | 2010e | 2009e | 2010e | 2009e | 2010e | 2009e | 2010e |
| First Solar (FSLR, \$110.20) | \$175 | \$250 | Overweight | \$7.66 | \$9.30 | \$7.66 | \$9.30 | \$7.44 | \$9.65 | 14.4x | 11.9x |
| SunPower (SPWRA, \$28.62) | \$50 | \$100 | Overweight | \$3.29* | \$4.27* | \$2.52* | \$3.30* | \$2.69 | \$3.54 | 11.4x* | 8.7x* |
| Evergreen Solar (ESLR, \$2.23) | \$3 | \$12 | Equal-weight | \$0.12 | \$0.50 | (\$0.03) | \$0.25 | \$0.29 | \$0.67 | NM | 8.8x |
| EnerNOC (ENOC, \$5.95) | \$10 | \$15 | Equal-weight | (\$1.18) | (\$0.10) | (\$1.18) | (\$0.10) | (\$0.88) | \$0.25 | NM | NM |
| Fuel Tech (FTEK, \$7.44) | \$10 | \$10 | Equal-weight | \$0.28 | \$0.56 | \$0.28 | \$0.56 | \$0.31 | \$0.59 | 26.6x | 13.4x |
| Aventine Renewable (AVR, \$0.77) | \$3 | \$3 | Underweight | \$0.12 | \$0.37 | \$0.12 | \$0.37 | \$0.05 | \$0.36 | 6.2x | 2.1x |
| BioFuel Energy (BIOF, \$0.33) | \$1 | \$2 | Underweight | (\$0.48) | \$0.12 | (\$0.51) | \$0.10 | (\$0.24) | \$0.10 | NM | 3.3x |
| Pacific Ethanol (PEIX, \$0.52) | \$1 | \$3 | Underweight | (\$0.50) | \$0.42 | (\$0.83) | (\$0.17) | (\$0.63) | (\$0.82) | NM | NM |

Source: Company data, FactSet, Morgan Stanley Research * Estimates are reflected as non-GAAP EPS

Key Solar Investment Debates

1) Will US climate and clean energy policy drive incremental earnings growth for stocks near term?

Our view: Clean energy and climate policy will be a top priority for the Obama administration and likely act as a stock catalyst, but implementation of policy will take time.

President-elect Obama supports a National Renewable Electricity Standard (RES) requiring that 10% of the nation's electricity come from renewable sources in 2012 and 25% by 2025. We believe that this standard would be a boon for clean energy stocks. We expect Congress to discuss such a proposal sometime early in 2009, but we do not expect legislation until 2H09. Our utilities analyst, Rudy Tolentino, believes that next year's legislative efforts could focus on electric transmission infrastructure that is required to bring renewable power to market and grid technologies to support efficiency, cyber security and demand response (see his report *The Electric Meter Reader*, October 27, 2008).

Climate change legislation is unlikely in 2009. We believe a more likely scenario is passage sometime in 2010 with implementation in 2012. That said, other avenues for renewable promotion do exist. Our conversations with Washington insiders indicate that allowing government entities to enter into 20-year power purchase agreements vs. today's 10 years is a near-term item, which would disproportionately benefit solar names. Other possible policy could include California's request for a Clean Air Act waiver to regulate auto emissions, further challenges to carbon-based energy production such as coal, and perhaps even federally mandated installation of solar in government buildings.

2) Is grid parity near?

Our view: Grid parity is closer than most think and best-in-breed companies (FSLR and SPWR) should benefit materially (companies with the ability to offer utilities and developers the lowest levelized cost of energy).

Grid parity is the price at which renewable energy is competitive with grid-produced electricity. As different markets have different prices (California peak: \$0.54; Hawaii average: \$0.32/kWh; Idaho average: \$0.07) there are many levels of grid parity. In other words, renewables become

Renewable Portfolio Standards (RPS). Mandates that utilities generate certain percentages of electricity generation from renewable sources by a certain year; 25 states and Washington, DC, have an RPS.

Market Price Referent (MPR). The levelized price in ¢ / kWh (or LCOE) that represents the cost of a long-term contract with a combined cycle gas turbine facility. The MPR is the dividing line for bids submitted to investor owned utilities for a RPS contract in California. Projects submitted below the MPR are deemed competitive on an economic basis with other traditional generating assets (i.e., at grid parity).

Levelized Cost of Energy (LCOE). The cost of generating electricity from a particular source over the lifetime of the asset. This includes upfront capital cost, fuel cost, operations, and maintenance and cost of capital.

$$\text{LCOE} = \frac{\text{Upfront capital cost} + \text{NPV(O\&M)}}{\text{NPV(Energy Output)}}$$

Grid Parity. The point at which the cost of renewable electricity is equal to or cheaper than grid power supplied by traditional sources of energy.

economically competitive at different times and in different places depending on the cost of grid electricity in the location.

With California the likely growth market for US solar, especially utility scale, we suggest investors focus their attention there. While there are numerous prices charged for electricity in the state, the benchmark rate for renewables is the Market Price Referent (MPR – see box). At its meeting on December 4, we expect the California Public Utilities Commission (CPUC) to formally adopt the 2008 MPR values for use with projects submitted for renewable portfolio standards. We expect the 2010 long-term MPR to be \$0.119, and up to \$0.137 when including a time of use multiplier that benefits solar generated electricity (solar is delivered at peak usage times when utilities need it most). This is an increase of up to +40% from last year's levels and, as we highlight in Exhibit 2, solar technologies are getting close to these levels. That said, LCOE is very sensitive to our WACC assumption. For each percentage point increase in WACC, the LCOE increases by ~\$0.01 per kWh for both FSLR and SPWR.

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Exhibit 2

Grid Parity in California Is Near

| Illustrative 2010 Solar LCOE Economics | | |
|--|---------------|---------------|
| | FSLR | SPWRA |
| Sales price (\$/watt) | \$4.00 | \$5.50 |
| LCOE to Utility | | |
| Lifetime (Yrs) | 25 | 25 |
| Tracking system | Fixed Tilt | Tracker |
| Capacity factor (%) | 20% | 26% |
| Discount rate/WACC (%) | 8.1% | 8.1% |
| Capital Costs (\$/kWh) | \$0.09 | \$0.10 |
| Operating and Maintenance Costs (\$/kWh) | \$0.02 | \$0.02 |
| Transmission and Distribution (\$/kWh) | \$0.03 | \$0.03 |
| LCOE - Cost to end user (\$/kWh) | \$0.14 | \$0.14 |
| Market Price Referent w/ Multiplier | \$0.14 | \$0.14 |

Source: Company data, Morgan Stanley Research

Note: This is a simplified example. Installations costs and irradiation vary by location. Analysis assumes 30% US federal investment tax credit for solar

3) Is solar a commodity?

Our view: While perhaps so for some technologies, we believe significant differentiation exists.

Commodities are homogenous products with no differentiation and pricing characterized solely by supply and demand. Yes, the kWh's generated from a FSLR module are no different from those generated from any other module, but that doesn't mean they're created equal. Production life, efficiency, low-light performance, time of delivery, warranty, and system design all matter significantly. We recognize commodity characteristics are visible in some areas of the industry (middle efficiency cell/module production — and we believe this will intensify). That said, we continue to believe producers with differentiated technology and business models that achieve grid parity first will gain market share, while being more profitable.

4) Will a price war drive constant ASP and margin pressure on solar companies?

Our view: Two floors support solar prices — developer IRRs near term and grid-tied electricity long term.

While pricing pressure has increased, we disagree with the view that an eternal price war (think DRAM) will bombard ASPs and margins. In a normalized environment, we would expect natural ASP declines to be relatively in line with subsidy declines until grid parity is achieved in more markets and solar competes with traditional generation sources on an unsubsidized basis. When that happens pricing pressure should subside as inventories are cleared and natural demand (nonsubsidized) emerges.

Several weeks ago, we noted that we expected solar module ASPs to decline by at least 25% in 2009 (see *Thoughts from Solar Power International 2008*, October 15, 2008). Our channels checks have indicated that prices have made significant progress toward these levels for many crystalline producers and could deteriorate further. Additionally, our Asian clean energy team has supported this view in its recent report *Dislocation and Inflection*, November 14, 2008. That said, as discussed above, developer IRRs are driving module ASPs near-term. Today we view this floor price as ~€2.00/Watt for 2009, as European project developers are able to reach baseline IRRs of 8%, even taking into account higher financing costs. See page 7 for further discussion of FSLR risks.

Exhibit 3

Developer IRRs Place Near-Term Floor on ASPs

| Illustrative German Greenfield Project (Thin Film vs. Crystalline) | | |
|--|------------------|------------------------------|
| | Thin Film (FSLR) | Crystalline (Mid-Efficiency) |
| | 2009 | 2009 |
| Module cost (€ / W) | € 1.54 | € 2.00 |
| Module cost (\$/W) | \$2.31 | \$3.00 |
| ASP decline | -6.5% | -25.9% |
| Balance of system (€ / W) | € 1.75 | € 1.23 |
| Total cost (€ / W) | € 3.29 | € 3.23 |
| ASP decline | -5.9% | -21.3% |
| Assumptions | | |
| Tariff (€ / kWh) | € 0.32 | € 0.32 |
| System size (kWp) | 10,000 | 10,000 |
| Tax rate | 32.0% | 32.0% |
| Capacity Factor | 1,050 | 1,000 |
| Load factor | 12% | 11% |
| Depreciation life (years) | 20 | 20 |
| Interest rate | 7.5% | 7.5% |
| Equity IRR | 8.5% | 8.0% |

* Assumes 35% balance of systems reduction for crystalline due to savings on materials cost and labor resulting from higher conversion efficiency

Source: Company data, Morgan Stanley Research

5) Will project finance challenges result in negative growth for the solar industry?

Our view: Obtaining project finance has clearly become a challenge, but the safety of the asset class and increased returns will continue to drive money flow from traditional and new sources.

We remain concerned about the ripple effect that tough credit conditions are having on the clean energy industry, particularly in solar and wind. In both groups, higher financing costs are widely expected to drive down developer returns (see our October 17 note) and force manufacturers to lower ASPs.

While project lending in Europe remains tight, we've seen recent evidence that conditions are improving, especially in Germany. Interest rate spreads for projects appear to have stabilized after spiking by ~200 bps from typical rates of

approximately 5% when the crisis began. At the recent Solar Praxis conference in Berlin, KfW, the leading lender for projects in Germany, was vocal about its willingness to continue to lend. Another positive example is the announcement by Phoenix Solar last week that it had secured a syndicated loan of €150 million led by BayerLB, with participation from Deutsche Bank, Dresdner Bank, and others.

In the US, the principal vehicle for project finance — tax equity finance (investment dollars from secondary investors that take advantage of the solar investment tax credit) — has essentially dried up from traditional sources. Typical lenders have significantly curtailed their investments in the area, as their tax appetite is now in question.

However, we see three additional sources that, while they will take some time, are clearly developing: 1) *Utilities*. The eight-year extension of the investment tax credit allows utilities to claim the 30% deduction. 2) *Corporate Entities*. With traditional players unable to take advantage of the tax credits we would expect an effort to market the product available to those who can. Corporate balance sheets with large amounts of passive income are likely candidates. 3) *Hedge funds / Private equity*. Each now enjoys a favorable tax status that may change under a new administration. This would make available a significant new source of dollars seeking tax shelter and with returns now in excess of 10%, we would expect interest from these players.

6) Is vertical integration the winning business model?

Our view: The debate continues even within our global clean energy team.

The industry continues to explore the merits of vertical integration, both upstream and downstream. The debate centers on whether owning the end customer creates or destroys value for module producers. As a global clean energy team, we are of two minds on the winning strategy. Ultimately, the goal is to offer the lowest levelized cost of energy to the customer, while capturing the most margin and return on investment as possible.

We see the benefits of downstream integration as threefold:

- *Cost*. Roughly 50% of system costs resides in balance of system and installation. Owning this end of the value change offers opportunity to reduce costs, capture margin, and offer a lower LCOE.
- *Competition*. The module business is becoming increasingly crowded and commoditized, while the importance of channel development is only growing, especially in the US utility market.
- *Asset ownership*. We believe the ability to own and operate solar assets offers an additional opportunity for sales with stable and predictable cash flows.

Our Asia clean energy team sees three reasons why the benefits of downstream integration may be overstated (see Sunil Gupta's *Solar Devices – Dislocation and Inflection*, November 14, 2008).

- *ROE dilutive*. ROE and margin may be negatively affected as higher-value module production is combined with lower-value system installation.
- *Potential conflict*. As other technologies such as thin film and concentrator modules become more prevalent, a vertically integrated c-Si module business will likely result in rigidity and potential conflicts with the system installation business.
- *Lack of scalability*. It may be more difficult to scale up a system integration business than a module business. Based on experience with other technology and engineering industries, once there are a large number of players at each stage of the food chain, vertical integration (particularly downstream) does not create value. The solar industry is likely to progress along the same path.

Our Scenario Framework

Base Case: Policy push; implementation takes time.

Result: Clean energy stocks trade flat throughout the year.

A global recession with low global growth of 1.7% and high oil prices range bound at \$50–75/bbl. The Obama administration passes clean energy stimulus plan, but implementation takes time. Foreign exchange risk negatively affects US companies with European sales, with the EUR/USD exchange rate reaching 1.10 by mid-2009.

Bull Case: Strong policy/regulatory push.

Result: Stocks see mid-2009 rally ahead of global recovery.

A global recovery resumes faster than investors anticipate with growth above 1.7%. Oil prices rise above \$75/bbl and remain there for the course of the year. Obama's \$150 billion energy plan becomes a core component of the administration's

economic recovery plan and Congress passes a National Renewable Electricity Standard in 1H09. Demand for clean energy substitutes for traditional energy sources spikes, forcing the focus to shift back from demand to supply.

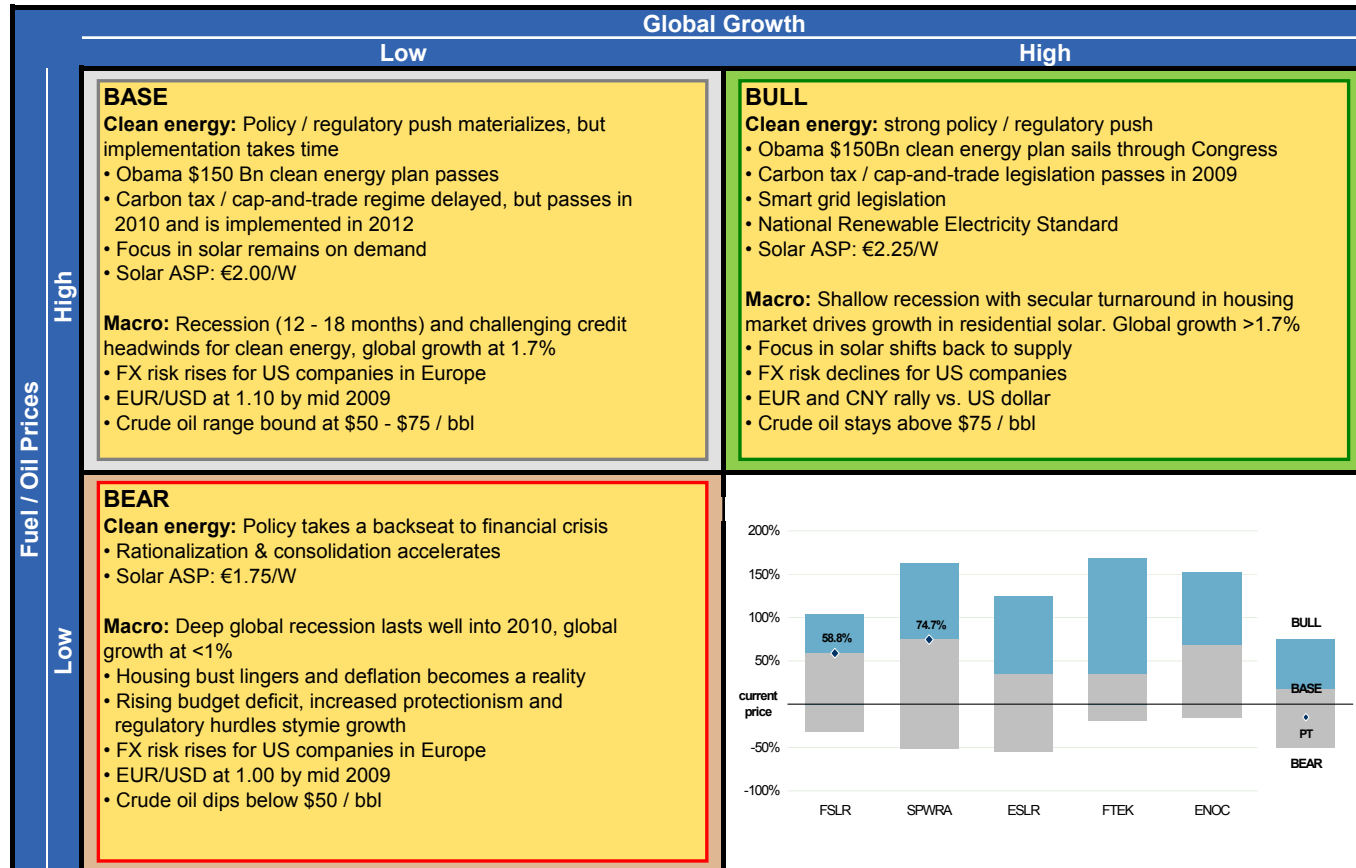
Bear Case: Policy takes backseat to financial crisis.

Result: Stocks see selling pressure throughout the year.

A global recession is deeper than investors anticipate, with growth below 1%. Sluggish economic activity pushes oil prices below \$50/bbl. Obama's \$150 billion energy plan takes a backseat to the administration's economic recovery plan. A rising budget deficit, increased government protectionism and new regulatory hurdles stymie growth. Rationalization and consolidation intensify in the solar and biofuel sectors as lagging demand and high credit costs make it difficult for some companies to survive.

Exhibit 4

Clean Energy Macroeconomic / Policy Scenario Outlook



Source: Morgan Stanley Research

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Impact on Stocks

Headwinds for solar companies have clearly materialized, but catalysts may create an opportunity for industry leaders. Being selective is increasingly important, and investors should remain attentive to potential downside near term. We suggested in early November that the solar rally leading up to the US presidential election was likely out of legs (see *Election Outcome Long-term Positive for Clean Energy*, November 5, 2008) and that investors should be prudent regarding near-term incremental benefits of a new administration to names in our space. Since the election, solar stocks have retreated significantly (FSLR and SPWRA are down 38% and 43%, respectively) on the heels of dismal earnings reports out of Asia, FX concerns, and overall market instability. We believe much of the bad news is behind us and likely priced in the stocks, offering the opportunity for policy catalysts to push best-in-breed names in a positive direction.

First Solar (FSLR, \$110, Overweight, Target \$175)

Lowering price target on our top pick, but we see entry points with compelling risk-reward profile (see risk-reward discussion on page 10). We previously reduced our earnings estimates and are now lowering our price target again to \$175 from \$250. However, given the stock's retreat, we see compelling opportunities on the horizon to buy a name with real and predictable year-over-year earnings growth of +90%, industry-leading gross margins of +50% (vs. the peer average in the low 20s), and a leading ability to enter the US utility space. We expect the stock to continue to trade at a premium multiple and our price target assumes ~17.5x non-GAAP 2010e of \$10.29.

We view limited downside at current levels. In our view, the biggest risk facing FSLR is pricing pressure from crystalline

producers and order cancellations should our bear case materialize. That said, FSLR arguably has the most stable pricing in the industry with 2009 fixed pricing at €1.54/Watt. This is well below industry average quotes from crystalline module producers of €2.30–2.40/Watt.

After speaking with several FSLR customers, we believe that demand remains strong and customers are eager to take additional production at contracted rates should some customers default (management has guided that 15% of customers are at risk).

An additional positive for FSLR is that given the tighter credit environment, project developers and lenders are being increasingly conservative regarding product quality. In other words, warranty visibility matters, and we expect the solar industry to experience a flight to quality.

Flat or downside scenarios:

- Pricing collapse:** Should pricing collapse for crystalline modules as hypothetically illustrated in Exhibit 5, we believe FSLR customers could be in a position of negotiating power. If we assume that 15% of FSLR's customers demand an additional ASP decline of 25% vs. a contractual decline of 6.5%, our 2009 non-GAAP EPS trends from \$8.52 to \$7.93. A target multiple of 12.5x and lower earnings of \$7.93 would imply a price of \$99.
- Customer cancellations:** If we took an even more bearish view and assumed that 15% of FSLR's customers cancelled their contracts altogether in 2009 and 2010, we estimate that earnings would be \$7.64. Applying a target multiple of 10.0x to EPS of \$7.64 implies a bear case price of \$76.

Exhibit 5

Downside Protection Should Contract Renegotiation Materialize

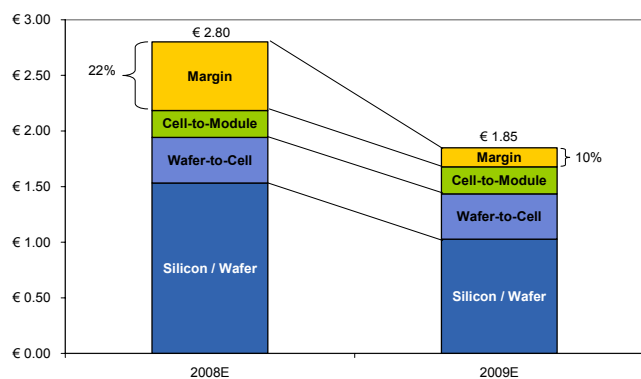
| Price / Volume Declines | Scenario | Gross Margin* | | EPS* | | Multiple | Implied Price | |
|-------------------------|--|---------------|-------|--------|---------|----------|---------------|-------|
| | | 2009E | 2010E | 2009E | 2010E | | 2009E | 2010E |
| NONE | No customer ASP declines other than those in our Base Case. ASP average of €1.54 and €1.44 for 2009/2010 | 49.9% | 48.5% | \$8.52 | \$10.29 | 15.0x | \$128 | \$154 |
| MODERATE | Customers renegotiate 15% of volume for 25% ASP declines in 2009/2010 to €1.48 and €1.39 | 49.1% | 47.7% | \$7.93 | \$9.58 | 12.5x | \$99 | \$120 |
| SEVERE | Customers cancel 15% of volumes due to financing issues in 2009 and 2010 | 46.7% | 45.2% | \$6.41 | \$7.64 | 10.0x | \$64 | \$76 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates
*Non-GAAP

We would expect pricing pressures to appear first in the secondary market for FSLR's modules. At times, contract buyers will sell FSLR delivery "out-the-back-door" at a premium rate when they do not have an immediate use for the product. This market is somewhat illiquid, and pricing spreads are stable today, but a significant contraction would signal to us that excess product demand is drying up and that pricing pressure and margin contraction is imminent.

Exhibit 6

Significant c-Si Price Declines Could Pressure FSLR



Source: Morgan Stanley Research

- **Foreign exchange:** Further appreciation of the US dollar vs. the Euro may negatively impact FSLR in 2009. That said, the company's revenues are 62% hedged at \$1.46 per Euro for 4Q08, 52% hedged at \$1.42 per Euro for 1H08 and 12% hedged at \$1.42 per Euro for 2H09. The company is also assuming a conservative exchange rate of \$1.15 per Euro for 2009 on its unhedged revenue.

SunPower (SPWRA, \$29, Overweight, Target \$50)

We are lowering our price target for SPWRA to \$50 from \$100 (see risk-reward discussion on page 18) and lowering our non-GAAP EPS estimates to \$2.52 from \$3.29 for 2009 and to \$3.30 from \$4.27 for 2010.

We continue to like the stock long term. We continue to view SunPower as a premium brand with a premium product, and a likely beneficiary of utilities' ability to claim the 30% tax reduction under the investment tax credit (ITC) extension.

Key Risks:

- **Cash sales.** With households and businesses conserving cash, we question how the company's focus on cash sales will materialize. The company is increasing its efforts on cash

sales and expects to generate 80% of 1H09 revenue in this fashion — the mirror opposite of the current sales mix.

- **Residential demand.** The company appears to be relying on strength in the residential market following the 30% extension of the investment tax credit (ITC) to residential systems, and robust demand from its 400-strong dealer network. It's possible the company may be overestimating this demand as dealers, previously light SPWRA product, increased order flow to support year-end installations ahead of 4Q08 expiration of the ITC. Our channel checks indicate that visibility beyond 1Q09 remains murky leading us to believe that channel inventory builds may result.

- **Foreign exchange.** Further appreciation of the US dollar vs. the Euro may negatively impact SPWRA in 2009. On November 4th, SPWRA revised its 4Q08 and 2009 guidance downward by \$0.15 and \$0.50 per share, respectively, citing a "substantial strengthening of the U.S. dollar relative to the Euro during the fourth quarter" as the rationale behind the lower guidance. That said, SPWRA management has indicated that it will be hedged for 80 to 90% of Euro-denominated net income in the fourth quarter of 2008 and more than 50% for the first three quarters of 2009.

Evergreen Solar (ESLR, \$2, Equal-weight)

We are lowering our fair value to \$3 (see risk-reward discussion on page 26).

We are increasingly negative on this solar name due to a host of issues about which we have been vocal in the past:

- **Litigation.** Over the next year and beyond, we believe that ESLR management will become increasingly mired in a lawsuit with Barclays Capital regarding the 12.2 million shares it lent Lehman before the firm filed for Chapter 11 bankruptcy protection. ESLR recently failed to win an injunction barring Barclays from selling these shares. We believe that the cost of this litigation, will be material in dollars and management attention. We have accounted for the shares in our new numbers.

- **High execution risk:** ESLR has booked ~1 GW in contracts worth over \$3 billion between now and 2013. That said, given numerous execution missteps, we have little confidence that management can expand its Marlboro facility fast enough to meet this demand. Furthermore, if the credit environment does not improve markedly over the next nine months, it is unlikely that ESLR will be able to raise the

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financing it requires to complete its expansion, in our view. We have incorporated this belief in our new numbers.

- **Contract pricing adjustments:** ESLR has been vocal about their take-or-pay sales contracts with relatively modest pricing declines. We believe this pricing will not be as sticky as the company suggests in the face of industry wide pricing declines of 25% or more.

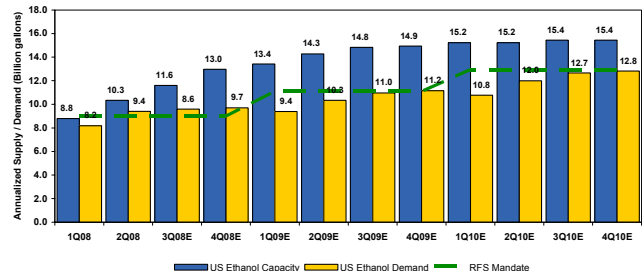
Ethanol: Still Negative

Reducing estimates for BIOF and PEIX. We are lowering our 2009e and 2010e earnings estimates for BIOF from (\$0.48) to (\$0.51) and \$0.12 to \$0.10 and PEIX from (\$0.50) to (\$0.83) and \$0.42 to (\$0.17). See detailed discussion on pages 33 and 38 respectively.

The ethanol industry continues to suffer from the delayed effects of high corn prices earlier this year on ethanol producer liquidity and an inability to access credit. VeraSun's Chapter 11 protection filing on October 31, 2008, is the first major casualty in the industry, which resulted, in part, from high corn prices (see *Discontinuing Coverage Due to Chapter 11 Filing*, November 6, 2008). With crush margins near break-even, industry overcapacity, ethanol producers suffering from the lingering effects of high corn prices on their liquidity, and the associated difficulty in raising funds in the current credit environment, we believe many industry players may continue to get acquired or face solvency issues.

Exhibit 7

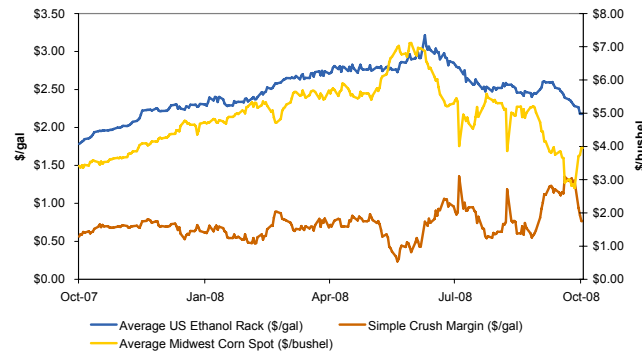
Supply / Demand Imbalance Persists into 2011



Source: Morgan Stanley Research

Exhibit 8

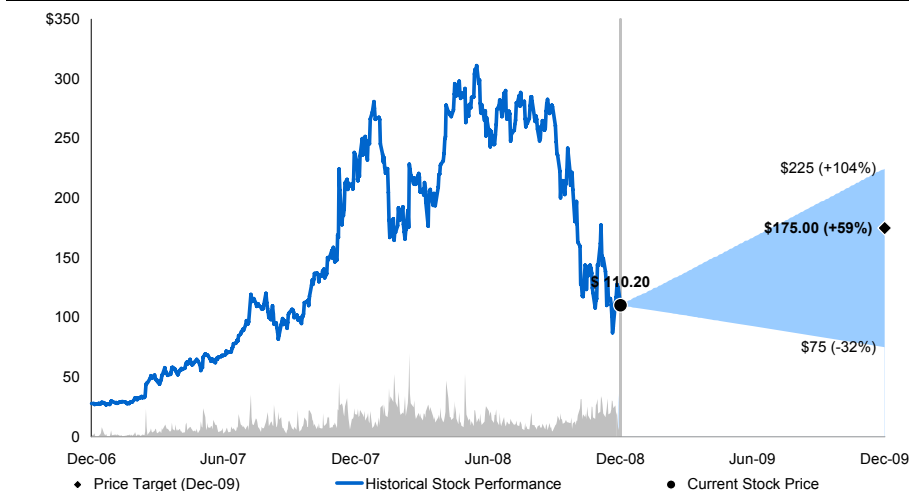
Ethanol Crush Margins Tightening Again



Source: Bloomberg, Morgan Stanley Research

First Solar (FSLR, \$110, Overweight, Target \$175)

Pricing Pressure from Competitors Is Key Downside Risk



Source: FactSet, Morgan Stanley Research

| | | |
|---------------------------|--|--|
| Price Target \$175 | | We use a 10-year DCF and a DCE model based on 2010e EPS. We are switching from 2012 to 2010 numbers to reflect near-term uncertainty in the sector. |
| Bull Case \$225 | ~17.5x Bull Case 2010 EPS of \$13.23 | Credit crisis subsides quickly , which results in lower financing costs for developers and FSLR accelerates near-term expansion of Malaysian facility. Multiples expand as faith returns to earnings. Production lines total 39 by end of 2010. Technology improvements increase line yield 8.2%. Assumes ASPs remain relatively high (\$1.85 in 2010) due to strong demand and a 2010 EUR/USD exchange rate of 1.23. |
| Base Case \$175 | ~17.5x Base Case 2010 EPS of \$10.29 | Credit crisis lingers , but more stable customers absorb lost sales from lesser quality customers with ASPs remaining at contracted levels. Multiples remain compressed as investor expectations are muted. Long-term full production ramp continues in 2010 reaching 36 lines. Assumes ASPs decline to \$1.80 in 2010 and a 2010 EUR/USD exchange rate of 1.25. |
| Bear Case \$75 | ~10x Bear Case 2010 EPS of \$7.81 | Credit crisis deepens . Project financing costs increase, forcing FSLR to lose 15% of 2009 sale volumes. Significant slashing of ASPs by crystalline competitors forces FSLR to reduce ASPs faster than contracted levels. Line expansion to 31 lines by 2010. ASPs decline to \$1.77 as competition increases and dollar rebounds to EUR/USD of 1.25. |

Investment Thesis

- FSLR's low-cost, thin-film modules; well-capitalized balance sheet with 2009e cash equivalents of \$1.2 billion; and strong FCF generation of \$538 million should help the company weather a module pricing war and potentially take share from weaker, middle efficiency producers.
- Weak macroeconomic fundamentals and high financing costs pressure industry ASPs in 2009.
- FX remains a headwind due to FSLR's high European exposure (~90%).
- US clean energy policy acts as catalyst, but implementation takes time.

Key Value Drivers

- Differentiated, low-cost product; lowest industry ASPs.
- US utility potential.
- Clean energy policy / regulation.

Potential Catalysts

- Passage of a US National Renewable Electricity Standard (RES).
- Outcome of UN climate change negotiations in December 2008.
- Accelerated Malaysian expansion.
- 4Q08 earnings.

Key Concerns

- Pricing collapse from silicon competitors of 35%+ puts contract pricing at risk.
- High EUR currency exposure.
- Impact of Obama administration's offshore income and tax haven abuse provisions on Malaysian income.
- Competing thin-film technologies from new entrants bring pricing and margin pressure.

Exhibit 9

FSLR Scenario Output

| Bull Case | 2006 | 2007 | 2008E | 2009E | 2010E | 2011E | 2012E |
|--------------------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|
| Revenue (\$ millions) | \$135 | \$504 | \$1,290 | \$2,491 | \$3,157 | \$3,970 | \$4,840 |
| Gross margin | 44% | 52% | 54% | 53% | 52% | 51% | 51% |
| Net income (\$ millions) | \$14 | \$138 | \$384 | \$966 | \$1,148 | \$1,414 | \$1,733 |
| EPS | \$0.24 | \$1.73 | \$4.64 | \$11.45 | \$13.23 | \$15.67 | \$18.46 |
| Name plate capacity (MW) | 99 | 308 | 932 | 1,433 | 2,241 | 3,172 | 4,241 |
| Sales (MW) | 56 | 209 | 518 | 1,152 | 1,704 | 2,309 | 3,078 |
| Line yield growth | 23.0% | 34.5% | 14.6% | 8.7% | 8.2% | 8.2% | 8.2% |
| EUR/USD | | 1.37 | 1.50 | 1.31 | 1.23 | 1.21 | 1.19 |
| ASP/MW | \$2.40 | \$2.42 | \$2.47 | \$2.08 | \$1.85 | \$1.72 | \$1.57 |
| ASP/MW Decline | NA | 1% | 2% | -16% | -11% | -7% | -9% |
| % Sales to US | 0% | 0% | 1% | 5% | 11% | 23% | 35% |
| COGS/W | \$1.35 | \$1.17 | \$1.14 | \$1.01 | \$0.89 | \$0.84 | \$0.76 |
| RONA | 3% | 11% | 21% | 35% | 29% | 26% | 24% |
| Base Case | 2006 | 2007 | 2008E | 2009E | 2010E | 2011E | 2012E |
| Revenue (\$ millions) | \$135 | \$504 | \$1,222 | \$2,103 | \$2,766 | \$3,354 | \$4,098 |
| Gross margin | 44% | 52% | 55% | 50% | 48% | 47% | 47% |
| Net income (\$ millions) | \$14 | \$138 | \$365 | \$719 | \$893 | \$1,057 | \$1,316 |
| EPS | \$0.24 | \$1.73 | \$4.41 | \$8.52 | \$10.29 | \$11.71 | \$14.01 |
| Name plate capacity (MW) | 99 | 308 | 926 | 1,241 | 1,976 | 2,796 | 3,710 |
| Sales (MW) | 56 | 209 | 501 | 1,106 | 1,539 | 2,091 | 2,865 |
| Line yield growth | 23.0% | 34.5% | 14.1% | 7.1% | 6.1% | 6.1% | 6.1% |
| EUR/USD | | 1.37 | 1.45 | 1.29 | 1.25 | 1.20 | 1.15 |
| ASP/MW | \$2.40 | \$2.42 | \$2.45 | \$1.91 | \$1.80 | \$1.61 | \$1.43 |
| ASP/MW Decline | NA | 1% | 1% | -22% | -6% | -11% | -11% |
| % Sales to US | 0% | 0% | 0% | 2% | 6% | 14% | 26% |
| COGS/W | \$1.35 | \$1.17 | \$1.09 | \$0.95 | \$0.93 | \$0.85 | \$0.76 |
| RONA | 3% | 11% | 20% | 29% | 26% | 23% | 23% |
| Bear Case | 2006 | 2007 | 2008E | 2009E | 2010E | 2011E | 2012E |
| Revenue (\$ millions) | \$135 | \$504 | \$1,181 | \$1,833 | \$2,445 | \$2,932 | \$3,412 |
| Gross margin | 44% | 52% | 52% | 46% | 45% | 43% | 43% |
| Net income (\$ millions) | \$14 | \$138 | \$319 | \$537 | \$678 | \$777 | \$887 |
| EPS | \$0.24 | \$1.73 | \$3.86 | \$6.37 | \$7.81 | \$8.61 | \$9.45 |
| Name plate capacity (MW) | 99 | 308 | 933 | 1,204 | 1,728 | 2,317 | 2,975 |
| Sales (MW) | 56 | 209 | 488 | 970 | 1,385 | 1,898 | 2,518 |
| Line yield growth | 23.0% | 34.5% | 7.9% | 7.6% | 6.6% | 6.6% | 6.6% |
| EUR/USD | | 1.37 | 1.45 | 1.15 | 1.25 | 1.20 | 1.15 |
| ASP/MW | \$2.40 | \$2.42 | \$2.35 | \$1.77 | \$1.77 | \$1.55 | \$1.36 |
| ASP/MW Decline | NA | 1% | -3% | -25% | 0% | -12% | -12% |
| % Sales to US | 0% | 0% | 0% | 2% | 5% | 12% | 20% |
| COGS/W | \$1.35 | \$1.17 | \$1.17 | \$1.02 | \$0.98 | \$0.88 | \$0.77 |
| RONA | 3% | 11% | 18% | 23% | 23% | 21% | 19% |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

December 2, 2008

Clean Energy

Exhibit 10

FSLR Discounted Earnings Valuation

| | Bear Case | | | Base Case | | | Bull Case | | |
|-----------------------------|-----------|--------|--------|-----------|---------|---------|-----------|---------|---------|
| C2010 Revenue Estimate | \$2,445 | | | \$2,766 | | | \$3,157 | | |
| C2006 - C2010E Revenue CAGR | 106% | | | 113% | | | 120% | | |
| Net Margin Sensitivity | 27% | 28% | 29% | 31% | 32% | 33% | 35% | 36% | 37% |
| Implied C2010E Net Income | \$653 | \$678 | \$702 | \$865 | \$893 | \$920 | \$1,116 | \$1,148 | \$1,179 |
| Implied C2010E EPS | \$7.54 | \$7.82 | \$8.10 | \$9.98 | \$10.30 | \$10.62 | \$12.88 | \$13.25 | \$13.61 |
| C2006 - C2010E EPS CAGR | 137% | 139% | 141% | 154% | 156% | 158% | 171% | 173% | 175% |

| P/E Multiple | Equity Value / Equity Value Per Share | | | | | | | | |
|-----------------|--|----------|----------|----------|----------|----------|----------|----------|----------|
| | 10.0x | \$6,431 | \$6,672 | \$6,912 | \$8,518 | \$8,790 | \$9,062 | \$10,989 | \$11,300 |
| | \$74 | \$77 | \$80 | \$98 | \$101 | \$105 | \$127 | \$130 | \$134 |
| 12.5x | \$8,039 | \$8,340 | \$8,641 | \$10,647 | \$10,988 | \$11,328 | \$13,736 | \$14,125 | \$14,513 |
| | \$93 | \$96 | \$100 | \$123 | \$127 | \$131 | \$159 | \$163 | \$168 |
| 15.0x | \$9,647 | \$10,008 | \$10,369 | \$12,777 | \$13,185 | \$13,594 | \$16,483 | \$16,949 | \$17,416 |
| | \$111 | \$116 | \$120 | \$147 | \$152 | \$157 | \$190 | \$196 | \$201 |
| 17.5x | \$11,254 | \$11,676 | \$12,097 | \$14,906 | \$15,383 | \$15,859 | \$19,230 | \$19,774 | \$20,318 |
| | \$130 | \$135 | \$140 | \$172 | \$178 | \$183 | \$222 | \$228 | \$235 |
| 20.0x | \$12,862 | \$13,343 | \$13,825 | \$17,036 | \$17,580 | \$18,125 | \$21,978 | \$22,599 | \$23,221 |
| | \$148 | \$154 | \$160 | \$197 | \$203 | \$209 | \$254 | \$261 | \$268 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

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Clean Energy

Exhibit 11

FSLR Discounted Cash Flow Valuation

| Bull Case (\$ millions except per share data) | 2008E | 2009E | 2010E | 2011E | 2012E | 2013E | 2014E | 2015E | 2016E | 2017E | 2018E |
|--|-----------------|---|--------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Revenue | \$1,290 | \$2,491 | \$3,157 | \$3,970 | \$4,840 | \$5,804 | \$6,843 | \$7,932 | \$8,996 | \$9,977 | \$10,974 |
| Revenue y/y growth | 156% | 93% | 27% | 22% | 20% | 20% | 18% | 16% | 13% | 11% | 10% |
| EBIT | \$504 | \$1,064 | \$1,278 | \$1,578 | \$1,938 | \$2,034 | \$2,125 | \$2,145 | \$2,249 | \$2,195 | \$2,195 |
| EBIT Margin | 39% | 43% | 40% | 40% | 40% | 35% | 31% | 27% | 25% | 22% | 20% |
| NOPAT | \$429 | \$905 | \$1,086 | \$1,341 | \$1,648 | \$1,729 | \$1,806 | \$1,824 | \$1,912 | \$1,866 | \$1,866 |
| + Depreciation and amortization | \$63 | \$125 | \$179 | \$246 | \$315 | \$375 | \$439 | \$501 | \$558 | \$616 | \$668 |
| - Capital expenditures | (531) | (406) | (596) | (616) | (506) | (546) | (571) | (558) | (515) | (524) | (464) |
| - Increase/(decrease) In working capital | 20 | 26 | 24 | 23 | 13 | 12 | 10 | 8 | 6 | 5 | 4 |
| Free Cash Flow | (\$19) | \$650 | \$693 | \$994 | \$1,470 | \$1,571 | \$1,683 | \$1,774 | \$1,961 | \$1,963 | \$2,074 |
| NPV at 11/25/2009 Discounted at 12.5% | (22) | 643 | 609 | 776 | 1,020 | 969 | 923 | 865 | 849 | 756 | 710 |
| EBITDA | \$567 | \$1,189 | \$1,457 | \$1,824 | \$2,253 | \$2,410 | \$2,564 | \$2,646 | \$2,807 | \$2,811 | \$2,863 |
| DCF Valuation for 11/25/2009 | | | | | | | | | | | |
| Net present value of cash flows | \$8,120 | Perpetuity Growth Rate / Terminal Value at 12.5% Discount Rate / Implied EBITDA Multiple | | | | | | | | | |
| Plus NPV of Terminal Value at 5% Growth | 9,936 | 4.0% | 4.5% | 5.0% | 5.5% | 6.0% | | | | | |
| Plus cash & Equivalents | 1,102 | 25.373 | 27,099 | 29,033 | 31,255 | 33,819 | | | | | |
| Less debt and minority interest | (167) | 8.9x | 9.5x | 10.1x | 10.9x | 11.8x | | | | | |
| Implied Equity Value | \$18,990 | Discounted Cash Flow Sensitivity - Discount Rate / Perpetuity Growth Rate | | | | | | | | | |
| Diluted shares outstanding (mm) | 84 | 4.0% | 4.5% | 5.0% | 5.5% | 6.0% | | | | | |
| Implied Equity Value Per Share | \$225 | 11.5% | \$238 | \$247 | \$259 | \$272 | \$287 | | | | |
| | | 12.0% | \$223 | \$231 | \$240 | \$251 | \$264 | | | | |
| | | 12.5% | \$210 | \$217 | \$225 | \$234 | \$244 | | | | |
| | | 13.0% | \$198 | \$204 | \$211 | \$219 | \$227 | | | | |
| | | 13.5% | \$188 | \$193 | \$199 | \$205 | \$213 | | | | |
| Base Case (\$ millions except per share data) | | | | | | | | | | | |
| Revenue | \$1,222 | \$2,103 | \$2,766 | \$3,354 | \$4,098 | \$4,836 | \$5,610 | \$6,395 | \$7,163 | \$7,879 | \$8,667 |
| Revenue y/y growth | 142% | 72% | 31% | 21% | 22% | 18% | 16% | 14% | 12% | 10% | 10% |
| EBIT | \$478 | \$788 | \$992 | \$1,177 | \$1,472 | \$1,451 | \$1,571 | \$1,663 | \$1,719 | \$1,733 | \$1,733 |
| EBIT Margin | 39% | 37% | 36% | 35% | 36% | 30% | 28% | 26% | 24% | 22% | 20% |
| NOPAT | \$407 | \$670 | \$843 | \$1,000 | \$1,251 | \$1,233 | \$1,335 | \$1,413 | \$1,461 | \$1,473 | \$1,473 |
| + Depreciation and amortization | \$63 | \$119 | \$165 | \$229 | \$293 | \$343 | \$393 | \$442 | \$488 | \$539 | \$589 |
| - Capital expenditures | (531) | (291) | (570) | (577) | (426) | (447) | (453) | (443) | (413) | (455) | (455) |
| - Increase/(decrease) In working capital | 9 | 41 | 36 | 27 | 26 | 32 | 34 | 36 | 37 | 39 | 41 |
| Free Cash Flow | (\$52) | \$538 | \$475 | \$680 | \$1,144 | \$1,162 | \$1,309 | \$1,448 | \$1,573 | \$1,597 | \$1,649 |
| NPV at 11/25/2009 Discounted at 12.5% | (58) | 532 | 417 | 531 | 794 | 717 | 718 | 706 | 681 | 615 | 564 |
| EBITDA | \$541 | \$907 | \$1,157 | \$1,406 | \$1,765 | \$1,793 | \$1,964 | \$2,105 | \$2,207 | \$2,272 | \$2,323 |
| DCF Valuation for 11/25/2009 | | | | | | | | | | | |
| Net present value of cash flows | \$6,217 | Perpetuity Growth Rate / Terminal Value at 12.5% Discount Rate / Implied EBITDA Multiple | | | | | | | | | |
| Plus NPV of Terminal Value at 5% Growth | 7,901 | 4.0% | 4.5% | 5.0% | 5.5% | 6.0% | | | | | |
| Plus cash & Equivalents | 1,062 | 20,177 | 21,541 | 23,087 | 24,853 | 26,892 | | | | | |
| Less debt and minority interest | (167) | 8.7x | 9.3x | 9.9x | 10.7x | 11.6x | | | | | |
| Implied Equity Value | \$15,011 | Discounted Cash Flow Sensitivity - Discount Rate / Perpetuity Growth Rate | | | | | | | | | |
| Diluted shares outstanding (mm) | 84 | 4.0% | 4.5% | 5.0% | 5.5% | 6.0% | | | | | |
| Implied Equity Value Per Share | \$178 | 11.5% | \$188 | \$196 | \$205 | \$215 | \$227 | | | | |
| | | 12.0% | \$176 | \$183 | \$190 | \$199 | \$209 | | | | |
| | | 12.5% | \$166 | \$172 | \$178 | \$185 | \$193 | | | | |
| | | 13.0% | \$157 | \$162 | \$167 | \$173 | \$180 | | | | |
| | | 13.5% | \$149 | \$153 | \$157 | \$163 | \$168 | | | | |
| Bear Case (\$ millions except per share data) | | | | | | | | | | | |
| Revenue | \$1,181 | \$1,833 | \$2,445 | \$2,932 | \$3,412 | \$3,901 | \$4,382 | \$4,835 | \$5,239 | \$5,571 | \$5,813 |
| Revenue y/y growth | 134% | 55% | 33% | 20% | 16% | 14% | 12% | 10% | 8% | 6% | 4% |
| EBIT | \$415 | \$587 | \$750 | \$860 | \$980 | \$1,043 | \$1,040 | \$1,002 | \$929 | \$849 | \$581 |
| EBIT Margin | 35% | 32% | 31% | 29% | 29% | 27% | 24% | 21% | 18% | 15% | 10% |
| NOPAT | \$352 | \$499 | \$638 | \$731 | \$833 | \$886 | \$884 | \$852 | \$790 | \$721 | \$494 |
| + Depreciation and amortization | \$63 | \$120 | \$157 | \$200 | \$243 | \$276 | \$307 | \$334 | \$356 | \$373 | \$389 |
| - Capital expenditures | (531) | (282) | (386) | (392) | (298) | (293) | (276) | (246) | (202) | (147) | (147) |
| - Increase/(decrease) In working capital | 43 | 17 | 32 | 29 | 20 | 25 | 27 | 28 | 29 | 31 | 32 |
| Free Cash Flow | (\$72) | \$353 | \$440 | \$567 | \$799 | \$894 | \$941 | \$968 | \$973 | \$978 | \$768 |
| NPV at 11/25/2009 Discounted at 12.5% | (80) | 349 | 387 | 443 | 554 | 552 | 516 | 472 | 421 | 376 | 263 |
| EBITDA | \$477 | \$706 | \$907 | \$1,060 | \$1,224 | \$1,319 | \$1,347 | \$1,336 | \$1,285 | \$1,221 | \$970 |
| DCF Valuation for 11/25/2009 | | | | | | | | | | | |
| Net present value of cash flows | \$4,253 | Perpetuity Growth Rate / Terminal Value at 12.5% Discount Rate / Implied EBITDA Multiple | | | | | | | | | |
| Plus NPV of Terminal Value at 5% Growth | 3,681 | 4.0% | 4.5% | 5.0% | 5.5% | 6.0% | | | | | |
| Plus cash & Equivalents | 900 | 9,400 | 10,036 | 10,756 | 11,579 | 12,529 | | | | | |
| Less debt and minority interest | (167) | 9.7x | 10.3x | 11.1x | 11.9x | 12.9x | | | | | |
| Implied Equity Value | \$8,666 | Discounted Cash Flow Sensitivity - Discount Rate / Perpetuity Growth Rate | | | | | | | | | |
| Diluted shares outstanding (mm) | 84 | 4.0% | 4.5% | 5.0% | 5.5% | 6.0% | | | | | |
| Implied Equity Value Per Share | \$103 | 11.5% | \$108 | \$112 | \$116 | \$121 | \$126 | | | | |
| | | 12.0% | \$102 | \$105 | \$109 | \$113 | \$117 | | | | |
| | | 12.5% | \$97 | \$100 | \$103 | \$106 | \$110 | | | | |
| | | 13.0% | \$93 | \$95 | \$97 | \$100 | \$103 | | | | |
| | | 13.5% | \$89 | \$90 | \$93 | \$95 | \$98 | | | | |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

December 2, 2008

Clean Energy

Exhibit 12

FSLR Quarterly Income Statement

| \$US in millions, except per share and as otherwise noted | 2008 | | | | 2009 | | | |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | 3/08 | 6/08 | 9/08 | 12/08E | 3/09E | 6/09E | 9/09E | 12/09E |
| Revenue | \$196.9 | \$267.0 | \$348.7 | \$409.2 | \$471.9 | \$542.6 | \$535.8 | \$552.9 |
| Cost of revenue (excl. stock comp) | 89.6 | 118.3 | 148.7 | 189.4 | 244.9 | 265.9 | 268.7 | 273.6 |
| Gross profit | \$107.3 | \$148.8 | \$200.0 | \$219.8 | \$227.0 | \$276.7 | \$267.2 | \$279.3 |
| R&D (excl. stock comp) | \$3.8 | \$6.4 | \$8.5 | \$10.2 | \$11.7 | \$13.4 | \$15.4 | \$17.8 |
| SG&A (excl. stock comp) | 21.7 | 34.2 | 38.4 | 42.5 | 44.3 | 46.5 | 48.8 | 51.2 |
| Production start-up (excl. stock comp) | 12.3 | 4.0 | 5.7 | 10.0 | 5.3 | 3.3 | 2.2 | 2.2 |
| Total operating expenses | \$37.7 | \$44.6 | \$52.6 | \$62.6 | \$61.2 | \$63.2 | \$66.5 | \$71.2 |
| Operating income | \$69.6 | \$104.1 | \$147.5 | \$157.2 | \$165.7 | \$213.5 | \$200.7 | \$208.0 |
| Foreign currency gain (loss) | 0.7 | 0.6 | (1.9) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Interest and other income (expense), net | 6.3 | 4.5 | 4.8 | 3.2 | 3.3 | 4.4 | 5.7 | 6.7 |
| Pre-tax income | \$76.6 | \$109.3 | \$150.4 | \$160.4 | \$169.0 | \$217.9 | \$206.3 | \$214.7 |
| Income tax expense | 21.9 | 28.2 | 38.2 | 43.3 | 18.6 | 24.0 | 22.7 | 23.6 |
| Net income (excl. stock comp) | \$54.8 | \$81.1 | \$112.2 | \$117.1 | \$150.4 | \$194.0 | \$183.7 | \$191.1 |
| Net income (incl. stock comp) | \$46.6 | \$69.7 | \$99.3 | \$104.1 | \$133.7 | \$176.3 | \$165.0 | \$171.3 |
| Diluted EPS (excl. stock comp) | \$0.67 | \$0.99 | \$1.36 | \$1.39 | \$1.78 | \$2.30 | \$2.17 | \$2.26 |
| Diluted EPS (incl. stock comp) | \$0.57 | \$0.85 | \$1.20 | \$1.24 | \$1.59 | \$2.09 | \$1.95 | \$2.03 |
| Weighted average shares outstanding basic | 79.1 | 79.9 | 80.4 | 80.8 | 81.2 | 81.6 | 82.1 | 82.5 |
| Weighted average shares outstanding diluted | 81.6 | 82.0 | 82.4 | 84.2 | 84.3 | 84.4 | 84.4 | 84.5 |
| Margin Analysis (excl. stock comp) | | | | | | | | |
| Gross margin | 54.5% | 55.7% | 57.4% | 53.7% | 48.1% | 51.0% | 49.9% | 50.5% |
| Operating margin | 35.3% | 39.0% | 42.3% | 38.4% | 35.1% | 39.3% | 37.5% | 37.6% |
| Net margin | 27.8% | 30.4% | 32.2% | 28.6% | 31.9% | 35.7% | 34.3% | 34.6% |
| Effective tax rate | 29% | 26% | 25% | 27% | 11% | 11% | 11% | 11% |
| Expense Analysis | | | | | | | | |
| R&D (% of rev) | 1.9% | 2.4% | 2.4% | 2.5% | 2.5% | 2.5% | 2.9% | 3.2% |
| SG&A (% of rev) | 11.0% | 12.8% | 11.0% | 10.4% | 9.4% | 8.6% | 9.1% | 9.3% |
| Production start-up (% of rev) | 6.2% | 1.5% | 1.6% | 2.4% | 1.1% | 0.6% | 0.4% | 0.4% |
| Operating expenses (% of rev) | 12.9% | 15.2% | 13.4% | 12.9% | 11.9% | 11.0% | 12.0% | 12.5% |
| Growth Analysis (y/y) | | | | | | | | |
| Revenue | 194.1% | 245.8% | 119.3% | 103.8% | 139.6% | 103.2% | 53.7% | 35.1% |
| Operating expenses | 80.3% | 145.5% | 164.1% | 142.8% | 62.2% | 41.5% | 26.5% | 13.8% |
| Diluted EPS (excl. stock comp) | 756.2% | 1138.9% | 147.2% | 59.8% | 177.7% | 145.9% | 62.2% | 64.1% |
| Key Metrics | | | | | | | | |
| RONA (annualized) | 16.9% | 21.6% | 26.9% | 26.2% | 31.0% | 36.3% | 31.6% | 30.4% |
| ASP/W | \$2.45 | \$2.57 | \$2.52 | \$2.25 | \$1.99 | \$1.99 | \$1.83 | \$1.82 |
| COGS/W | \$1.13 | \$1.15 | \$1.09 | \$1.04 | \$1.03 | \$0.98 | \$0.92 | \$0.90 |
| Total capacity (MW) | 313 | 522 | 719 | 926 | 1,137 | 1,154 | 1,223 | 1,241 |
| Total sales (MW) | 79 | 103 | 137 | 182 | 237 | 273 | 294 | 303 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

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Clean Energy

Exhibit 13

FSLR Annual Income Statement

| | Fiscal Year | | | | | | | |
|--|-----------------|----------------|----------------|------------------|------------------|------------------|------------------|------------------|
| | 2005 | 2006 | 2007 | 2008E | 2009E | 2010E | 2011E | 2012E |
| <i>\$US in millions, except per share and as otherwise noted</i> | | | | | | | | |
| Revenue | \$48.1 | \$135.0 | \$504.0 | \$1,221.9 | \$2,103.2 | \$2,765.6 | \$3,354.4 | \$4,098.5 |
| Cost of revenue (excl. stock comp) | 30.7 | 76.2 | 244.0 | 546.0 | 1,053.1 | 1,425.4 | 1,780.2 | 2,183.7 |
| Gross profit | \$17.4 | \$58.8 | \$260.0 | \$675.9 | \$1,050.1 | \$1,340.1 | \$1,574.2 | \$1,914.7 |
| R&D (excl. stock comp) | \$1.7 | \$4.0 | \$10.9 | \$28.8 | \$58.3 | \$80.4 | \$97.7 | \$118.8 |
| SG&A (excl. stock comp) | 12.4 | 29.0 | 58.5 | 136.8 | 190.8 | 229.1 | 260.5 | 285.1 |
| Production start-up (excl. stock comp) | 3.2 | 11.7 | 15.5 | 32.0 | 13.0 | 39.0 | 39.0 | 39.0 |
| Total operating expenses | \$17.3 | \$44.7 | \$84.8 | \$197.5 | \$262.1 | \$348.5 | \$397.2 | \$442.9 |
| Operating income | \$0.1 | \$14.1 | \$175.2 | \$478.4 | \$787.9 | \$991.6 | \$1,177.0 | \$1,471.9 |
| Foreign currency gain (loss) | (1.7) | 5.5 | 1.9 | (0.5) | 0.0 | 0.0 | 0.0 | 0.0 |
| Interest and other income (expense), net | (0.0) | 0.8 | 16.9 | 18.9 | 20.1 | 34.5 | 51.7 | 76.2 |
| Pre-tax income | (\$1.7) | \$20.4 | \$193.9 | \$496.7 | \$808.0 | \$1,026.1 | \$1,228.7 | \$1,548.1 |
| Income tax expense | 0.0 | 6.5 | 55.9 | 131.6 | 88.9 | 133.4 | 172.0 | 232.2 |
| Net income (excl. stock comp) | (\$1.7) | \$13.9 | \$138.0 | \$365.2 | \$719.2 | \$892.7 | \$1,056.7 | \$1,315.8 |
| Net income (incl. stock comp) | (\$6.5) | \$4.0 | \$111.7 | \$319.6 | \$646.2 | \$807.0 | \$956.9 | \$1,199.4 |
| Diluted EPS (excl. stock comp) | (\$0.03) | \$0.24 | \$1.73 | \$4.41 | \$8.52 | \$10.29 | \$11.71 | \$14.01 |
| Diluted EPS (incl. stock comp) | (\$0.13) | \$0.07 | \$1.40 | \$3.86 | \$7.66 | \$9.30 | \$10.60 | \$12.77 |
| Weighted average shares outstanding basic | 48.8 | 56.3 | 74.7 | 80.0 | 81.8 | 83.5 | 85.2 | 86.9 |
| Weighted average shares outstanding diluted | 48.8 | 58.3 | 78.0 | 82.6 | 84.4 | 86.6 | 90.2 | 93.8 |
| Margin Analysis (excl. stock comp) | | | | | | | | |
| Gross margin | 36.2% | 43.5% | 51.6% | 55.3% | 49.9% | 48.5% | 46.9% | 46.7% |
| Operating margin | 0.2% | 10.4% | 34.8% | 39.2% | 37.5% | 35.9% | 35.1% | 35.9% |
| Net margin | -3.5% | 10.3% | 27.4% | 29.9% | 34.2% | 32.3% | 31.5% | 32.1% |
| Effective tax rate | 0% | 32% | 29% | 26% | 11% | 13% | 14% | 15% |
| Expense Analysis | | | | | | | | |
| R&D (% of rev) | 3.6% | 2.9% | 2.2% | 2.4% | 2.8% | 2.9% | 2.9% | 2.9% |
| SG&A (% of rev) | 25.8% | 21.5% | 11.6% | 11.2% | 9.1% | 8.3% | 7.8% | 7.0% |
| Production start-up (% of rev) | 6.6% | 8.7% | 3.1% | 2.6% | 0.6% | 1.4% | 1.2% | 1.0% |
| Operating expenses (% of rev) | 36.0% | 33.1% | 16.8% | 16.2% | 12.5% | 12.6% | 11.8% | 10.8% |
| Growth Analysis (y/y) | | | | | | | | |
| Revenue | | 180.8% | 273.4% | 142.4% | 72.1% | 31.5% | 21.3% | 22.2% |
| Operating expenses | | 158.2% | 89.8% | 133.0% | 32.7% | 33.0% | 14.0% | 11.5% |
| Diluted EPS (excl. stock comp) | | NM | 624.6% | 154.9% | 93.1% | 20.7% | 13.8% | 19.7% |
| Key Metrics | | | | | | | | |
| RONA (annualized) | | 2.5% | 11.2% | 20.4% | 28.6% | 26.1% | 23.5% | 22.6% |
| ASP/W | | \$2.40 | \$2.42 | \$2.45 | \$1.91 | \$1.80 | \$1.61 | \$1.43 |
| COGS/W | | \$1.35 | \$1.17 | \$1.09 | \$0.95 | \$0.93 | \$0.85 | \$0.76 |
| Total capacity (MW) | | 99 | 308 | 926 | 1,241 | 1,976 | 2,796 | 3,710 |
| Total sales (MW) | | 56 | 209 | 501 | 1,106 | 1,539 | 2,091 | 2,865 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

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Exhibit 14

FSLR Annual Balance Sheet

| \$US in millions, except per share and as otherwise noted | Fiscal Year | | | | | | | |
|--|----------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | 2005 | 2006 | 2007 | 2008E | 2009E | 2010E | 2011E | 2012E |
| ASSETS | | | | | | | | |
| Cash and cash equivalents | \$16.7 | \$308.1 | \$404.3 | \$522.8 | \$1,219.7 | \$1,756.9 | \$2,509.1 | \$3,585.2 |
| Short-term investments | 0.3 | 0.3 | 232.7 | 200.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Accounts receivables | 1.1 | 28.0 | 18.2 | 54.3 | 76.7 | 110.6 | 129.4 | 154.0 |
| Inventories | 6.9 | 16.5 | 40.2 | 136.0 | 136.8 | 206.2 | 248.3 | 298.5 |
| Grants receivables | 0.0 | 27.5 | 35.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| Deferred tax asset, current | 0.0 | 0.0 | 3.9 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| Prepaid expenses and other current assets | 1.5 | 8.1 | 67.4 | 87.6 | 118.4 | 173.0 | 202.1 | 240.5 |
| Total Current Assets | 26.6 | 388.5 | 802.5 | 1,005.2 | 1,656.1 | 2,351.3 | 3,193.5 | 4,382.8 |
| Property & equipment net | 73.8 | 178.9 | 430.1 | 928.7 | 1,101.1 | 1,505.6 | 1,853.6 | 2,139.7 |
| Restricted investments | 1.3 | 8.2 | 47.4 | 44.2 | 44.2 | 44.2 | 44.2 | 44.2 |
| Deferred tax asset, non current | 0.0 | 0.0 | 51.8 | 54.9 | 54.9 | 54.9 | 54.9 | 54.9 |
| Other non current Assets | 0.3 | 2.9 | 39.5 | 47.9 | 47.9 | 47.9 | 47.9 | 47.9 |
| TOTAL ASSETS | \$101.9 | \$578.5 | \$1,371.3 | \$2,081.0 | \$2,904.2 | \$4,003.9 | \$5,194.1 | \$6,669.5 |
| LIABILITIES AND SHAREHOLDERS' EQUITY | | | | | | | | |
| Short term debt | - | \$16.3 | \$24.5 | - | - | - | - | - |
| Note payable | 20.0 | - | - | - | - | - | - | - |
| Current portion of long-term debt | 0.1 | 3.3 | 14.8 | 26.7 | 26.7 | 26.7 | 26.7 | 26.7 |
| Accounts payable and accrued expences | 13.8 | 32.1 | 132.4 | 282.8 | 377.8 | 572.1 | 689.3 | 828.3 |
| Other current liabilities | - | 0.3 | 14.8 | 87.3 | 87.3 | 87.3 | 87.3 | 87.3 |
| Total current liabilities | 33.9 | 52.1 | 186.5 | 396.8 | 491.9 | 686.1 | 803.3 | 942.3 |
| Accrued recycling | 0.9 | 3.7 | 13.1 | 28.1 | 28.1 | 28.1 | 28.1 | 28.1 |
| Note payable | 8.7 | - | - | - | - | - | - | - |
| Long-term debt | 19.9 | 61.0 | 68.9 | 140.8 | 140.8 | 140.8 | 140.8 | 140.8 |
| Other non current liabilities | 0.1 | - | 5.6 | 8.2 | 8.2 | 8.2 | 8.2 | 8.2 |
| Total long-term liabilities | 29.6 | 64.8 | 87.6 | 177.0 | 177.0 | 177.0 | 177.0 | 177.0 |
| TOTAL LIABILITIES | \$63.5 | \$116.8 | \$274.0 | \$573.8 | \$668.9 | \$863.2 | \$980.3 | \$1,119.4 |
| Employee stock options on redeemable shares | \$25.3 | \$50.2 | - | - | - | - | - | - |
| Membership Equity | 162.3 | - | - | - | - | - | - | - |
| Common Stock | - | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Additional paid-in capital | - | 555.7 | 1,079.8 | 1,162.5 | 1,244.5 | 1,342.9 | 1,459.0 | 1,596.0 |
| Accumulated deficit | (149.4) | (145.4) | 12.9 | 332.6 | 978.8 | 1,785.8 | 2,742.8 | 3,942.1 |
| Accumulated other comprehensive loss | 0.2 | 1.0 | 4.5 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| Total Shareholders' equity | \$13.1 | \$411.4 | \$1,097.3 | \$1,507.1 | \$2,235.3 | \$3,140.8 | \$4,213.8 | \$5,550.2 |
| Total Liabilities and Shareholders' equity | \$101.9 | \$578.5 | \$1,371.3 | \$2,081.0 | \$2,904.2 | \$4,003.9 | \$5,194.1 | \$6,669.5 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

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Clean Energy

Exhibit 15

FSLR Annual Cash Flow Statement

| \$US in millions, except per share and as otherwise noted | Fiscal Year | | | | | | | |
|--|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | 2005 | 2006 | 2007 | 2008E | 2009E | 2010E | 2011E | 2012E |
| Cash flows from operating activities | | | | | | | | |
| Net income (loss) | (\$6.5) | \$4.0 | \$158.4 | \$319.7 | \$646.2 | \$807.0 | \$956.9 | \$1,199.4 |
| Depreciation and amortization | 3.4 | 10.2 | 24.5 | 62.7 | 118.7 | 165.2 | 228.8 | 293.0 |
| Stock-based compensation | 4.8 | 11.9 | 39.0 | 61.5 | 81.9 | 98.5 | 116.0 | 137.0 |
| Deferred income taxes | - | - | (55.9) | (6.1) | - | - | - | - |
| Excess tax benefit from share-based compensation | - | - | (30.2) | (14.0) | - | - | - | - |
| Loss on disposal of PP&E | - | 0.3 | 0.3 | 0.1 | - | - | - | - |
| Non-cash interest | 0.1 | 0.4 | (0.003) | - | - | - | - | - |
| Non-cash loss | 0.0 | 0.0 | - | 0.2 | - | - | - | - |
| Provision for excess and obsolete inventories | - | - | 0.0 | 0.5 | - | - | - | - |
| Other changes in operating cash flows | - | - | - | 27.0 | - | - | - | - |
| Changes in operating assets and liabilities: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Accounts receivable | 3.3 | (28.1) | 11.0 | (39.0) | (22.4) | (34.0) | (18.8) | (24.6) |
| Inventories | (2.9) | (9.7) | (19.8) | (94.9) | (0.9) | (69.3) | (42.2) | (50.1) |
| Prepaid expenses and other current assets | (1.1) | (6.7) | (7.4) | (58.8) | (30.8) | (54.6) | (29.0) | (38.4) |
| Other non-current assets | - | 0.1 | (3.8) | (2.2) | - | - | - | - |
| Accounts payable & accrued expenses | 3.9 | 17.0 | 89.9 | 204.2 | 95.1 | 194.2 | 117.2 | 139.0 |
| Net cash provided (used) in operating activities | \$5.0 | (\$0.6) | \$206.0 | \$460.8 | \$888.0 | \$1,107.0 | \$1,328.9 | \$1,655.3 |
| Cash flows from investing activities | | | | | | | | |
| Purchase of property and equipment | (\$42.5) | (\$153.2) | (\$242.4) | (\$530.6) | (\$291.1) | (\$569.7) | (\$576.7) | (\$579.1) |
| Purchases of restricted investments | (1.3) | (6.8) | (299.4) | 66.6 | 100.0 | - | - | - |
| Other investments in long term assets | (0.1) | (0.0) | (5.5) | 0.9 | - | - | - | - |
| Net cash used in investing activities | (\$43.8) | (\$160.0) | (\$547.3) | (\$463.1) | (\$191.1) | (\$569.7) | (\$576.7) | (\$579.1) |
| Cash flows from financing activities | | | | | | | | |
| Proceeds from the issuance of common stock | - | 302.7 | 366.0 | 7.2 | - | - | - | - |
| Proceeds from notes payable to related party | 20.0 | 36.0 | - | - | - | - | - | - |
| Prepayments of notes payable to related party | - | (64.7) | - | - | - | - | - | - |
| Repayment of long-term debt | - | (0.1) | (34.8) | (30.6) | - | - | - | - |
| Equity contributions | 16.7 | 30.0 | - | - | - | - | - | - |
| Proceeds from stock options exercised | - | 0.1 | 10.2 | - | - | - | - | - |
| Proceeds from debt | 15.0 | 132.3 | 49.4 | 81.7 | - | - | - | - |
| Tax benefit from options | - | 0.0 | 30.2 | 14.0 | - | - | - | - |
| Debt issuance costs | - | (1.5) | - | - | - | - | - | - |
| Proceeds from economic development | - | 16.8 | 9.5 | 35.7 | - | - | - | - |
| Other financing activities | - | (0.0) | (0.0) | (0.0) | - | - | - | - |
| Net cash provided by financing activities | \$51.7 | \$451.6 | \$430.4 | \$107.9 | - | - | - | - |
| Effect of exchange rate changes on cash | 0.4 | 0.4 | 7.1 | 12.9 | - | - | - | - |
| Net increase/decrease in cash and equivalents | \$12.9 | \$291.0 | \$89.1 | \$105.6 | \$696.9 | \$537.2 | \$752.2 | \$1,076.2 |
| Cash and equivalents at beg of period | \$3.5 | \$16.7 | \$308.1 | \$404.3 | \$522.8 | \$1,219.7 | \$1,756.9 | \$2,509.1 |
| Cash and equivalents at end of period | \$16.7 | \$308.1 | \$404.3 | \$522.8 | \$1,219.7 | \$1,756.9 | \$2,509.1 | \$3,585.2 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

SunPower (SPWRA, \$29, Overweight, Target \$50)

Credit Concerns, Competition and Currency Credibility Clip Margins



Source: FactSet, Morgan Stanley Research

| | | |
|--------------------------|------------------------------------|--|
| Price Target \$50 | ~15x | We value SPWRA using a blend of our 10-year DCF at a hurdle rate of 12.5% and discounted earnings valuation (based on our 2010e EPS estimates). |
| Bull Case \$75 | Bull Case 2010e EPS of \$5.26 | Ability to offer lowest levelized cost of energy results in utility contract wins, while residential demand strengthens in response to ITC. Credit crisis subsides in the near-term, which results in lower financing costs for developers and lower ASP declines. Silicon availability allows aggressive expansion of module production and company adds 2 production lines per quarter starting in 2011. System installations reach ~840MW in 2012, while module production reaches ~1.3GW. Company blended gross margins trend toward 30%. |
| Base Case \$50 | Base Case 2010e EPS of \$3.30 | Credit crisis lingers into 2009 resulting in higher financing costs for developers and industry ASP declines of ~25%. Margins are remain below guidance as incremental costs savings do not materialize, industry ASPs continue to decline, and the USD strengthens relative to the EUR. Long-term story remains intact and 2012 system installations reach ~700MW, while module production reaches ~1.1GW. Long-term margins trend toward 28%. |
| Bear Case \$14 | Bear Case 2009e BVPS of \$13.65 | Residential growth in US falters significantly and regulator approval for utility scale projects in US fails to materialize in 2009. Multiple compression follows margin compression as ASP declines higher than 25% in 2009. Company misses guidance by ~30%. |

Investment Thesis

- SPWRA's high-efficiency modules and vertically integrated business model help SPWRA weather ASP declines and solar industry consolidation and rationalization.
- However, 2009 proves challenging as cash sales and residential demand growth fails to materialize as expected.
- Weak macroeconomic fundamentals and high financing costs pressure industry ASPs in 2009.
- FX remains a headwind.
- US clean energy policy acts as catalyst, but implementation takes time.
- Our 2009e EPS of \$2.52 represents our revised view that developers will push down ASPs to maintain project IRRs and the USD continues to strengthen against the EUR.

Key Value Drivers

- Lowest LCOE.
- Differentiated, high-efficiency product.
- Vertically integrated systems business and strong dealer network.
- Clean energy policy / regulation.

Potential Catalysts

- Passage of a US National Renewable Electricity Standard (RES).
- Outcome of UN climate change negotiations in December 2008.
- Utility scale solar announcements.
- 4Q08 earnings.

Key Concerns

- Continued macroeconomic weakness and tight credit markets.
- FX exposure.
- Margin pressure from rapidly declining ASPs.
- Increased competition from FSLR / SolarCity in residential solar.

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Exhibit 16

SPWRA Scenario Output

| Bull Case | 2007 | 2008E | 2009E | 2010E | 2011E | 2012E |
|--------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Revenue (\$ millions) | \$776 | \$1,485 | \$2,138 | \$3,252 | \$4,291 | \$5,453 |
| Blended Gross margin | 24% | 29% | 29% | 28% | 29% | 30% |
| System Gross margin | 23% | 25% | 25% | 25% | 26% | 27% |
| Components Gross margin | 25% | 35% | 33% | 33% | 35% | 37% |
| Net income (\$ millions) | \$103.2 | \$219.5 | \$313.7 | \$475.2 | \$668.7 | \$920.0 |
| EPS | \$1.27 | \$2.57 | \$3.54 | \$5.26 | \$7.25 | \$9.79 |
| Name plate capacity (MW) | 214 | 424 | 624 | 876 | 1,228 | 1,580 |
| Module Production (MW) | 102 | 232 | 458 | 709 | 997 | 1,347 |
| Module (ASP/MW) | \$3.89 | \$3.91 | \$3.46 | \$3.17 | \$2.90 | \$2.67 |
| Module ASP Decline | | 0.37% | -11.48% | -8.44% | -8.41% | -7.76% |
| System (ASP/MW) | \$7.32 | \$7.60 | \$6.35 | \$5.51 | \$5.00 | \$4.56 |
| System ASP Decline | | 3.82% | -16.48% | -13.15% | -9.36% | -8.77% |
| System Installations* | 63 | 121 | 163 | 366 | 563 | 840 |
| Base Case | 2007E | 2008E | 2009E | 2010E | 2011E | 2012E |
| Revenue (\$ millions) | \$776 | \$1,431 | \$1,915 | \$2,543 | \$3,398 | \$4,153 |
| Blended Gross margin | 24% | 27% | 26% | 27% | 28% | 28% |
| System Gross margin | 23% | 22% | 21% | 23% | 25% | 26% |
| Components Gross margin | 25% | 33% | 30% | 31% | 34% | 34% |
| Net income (\$ millions) | \$103.2 | \$184.8 | \$223.2 | \$298.4 | \$434.7 | \$570.9 |
| EPS | \$1.27 | \$2.17 | \$2.52 | \$3.30 | \$4.72 | \$6.07 |
| Name plate capacity (MW) | 214 | 424 | 544 | 754 | 1,006 | 1,342 |
| Module Production (MW) | 102 | 232 | 442 | 620 | 840 | 1,122 |
| Module (ASP/MW) | \$3.81 | \$3.89 | \$3.12 | \$2.84 | \$2.65 | \$2.46 |
| Module ASP Decline | | 2.12% | -19.81% | -8.94% | -6.58% | -7.09% |
| System (ASP/MW) | \$7.32 | \$7.27 | \$5.85 | \$5.19 | \$4.68 | \$4.26 |
| System ASP Decline | | -0.70% | -19.56% | -11.22% | -9.84% | -9.04% |
| System Installations* | 63 | 112 | 157 | 281 | 512 | 684 |
| Bear Case | 2007E | 2008E | 2009E | 2010E | 2011E | 2012E |
| Revenue (\$ millions) | \$776 | \$1,362 | \$1,748 | \$2,364 | \$2,813 | \$3,208 |
| Blended Gross margin | 24% | 27% | 26% | 24% | 23% | 22% |
| System Gross margin | 23% | 22% | 21% | 20% | 19% | 19% |
| Components Gross margin | 25% | 33% | 29% | 29.43% | 28.94% | 27.49% |
| Net income (\$ millions) | \$103.2 | \$175.0 | \$189.5 | \$200.0 | \$218.4 | \$225.8 |
| EPS | \$1.27 | \$2.06 | \$2.14 | \$2.21 | \$2.37 | \$2.40 |
| Name plate capacity (MW) | 214 | 414 | 574 | 774 | 974 | 1,174 |
| Module Production (MW) | 102 | 211 | 455 | 643 | 842 | 1,042 |
| Module (ASP/MW) | \$3.81 | \$3.89 | \$2.98 | \$2.58 | \$2.28 | \$2.01 |
| Module ASP Decline | | 2.12% | -23.29% | -13.46% | -11.51% | -12.00% |
| System (ASP/MW) | \$7.32 | \$7.26 | \$5.42 | \$4.60 | \$4.12 | \$3.72 |
| System ASP Decline | | -0.85% | -25.27% | -15.17% | -10.44% | -9.63% |
| System Installations* | 63 | 105 | 127 | 298 | 403 | 525 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

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Exhibit 17

SPWRA Discounted Earnings Valuation

| <i>(US\$ in millions except per share data)</i> | Bear Case | | | Base Case | | | Bull Case | | |
|---|---------------------------------------|---------|---------|-----------|---------|---------|-----------|----------|----------|
| C2010 Revenue Estimate | \$2,364 | | | \$2,543 | | | \$3,252 | | |
| C2006 - C2010E Revenue CAGR | 78% | | | 81% | | | 93% | | |
| Net Margin Sensitivity | 7% | 8% | 9% | 11% | 12% | 13% | 14% | 15% | 16% |
| Implied C2010E Net Income | \$176 | \$200 | \$224 | \$273 | \$298 | \$324 | \$443 | \$475 | \$508 |
| Implied C2010E EPS | \$1.95 | \$2.22 | \$2.48 | \$3.02 | \$3.31 | \$3.59 | \$4.90 | \$5.26 | \$5.62 |
| C2006 - C2010E EPS CAGR | 34% | 38% | 42% | 49% | 53% | 56% | 68% | 72% | 74% |
| P/E Multiple | Equity Value / Equity Value Per Share | | | | | | | | |
| 5x | \$870 | \$987 | \$1,104 | \$1,347 | \$1,472 | \$1,598 | \$2,184 | \$2,345 | \$2,505 |
| | \$10 | \$11 | \$12 | \$15 | \$16 | \$18 | \$24 | \$26 | \$28 |
| 10x | \$1,740 | \$1,974 | \$2,207 | \$2,694 | \$2,945 | \$3,196 | \$4,368 | \$4,689 | \$5,010 |
| | \$19 | \$22 | \$24 | \$30 | \$33 | \$35 | \$48 | \$52 | \$55 |
| 15x | \$2,611 | \$2,961 | \$3,311 | \$4,041 | \$4,417 | \$4,794 | \$6,552 | \$7,034 | \$7,515 |
| | \$29 | \$33 | \$37 | \$45 | \$49 | \$53 | \$73 | \$78 | \$83 |
| 20x | \$3,481 | \$3,947 | \$4,414 | \$5,388 | \$5,890 | \$6,392 | \$8,736 | \$9,378 | \$10,020 |
| | \$39 | \$44 | \$49 | \$60 | \$65 | \$71 | \$97 | \$104 | \$111 |
| 25x | \$4,351 | \$4,934 | \$5,518 | \$6,735 | \$7,362 | \$7,990 | \$10,920 | \$11,723 | \$12,525 |
| | \$48 | \$55 | \$61 | \$75 | \$82 | \$88 | \$121 | \$130 | \$139 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

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Clean Energy

Exhibit 18

SPWRA Discounted Earnings Valuation

| Bull Case (\$ millions except per share data) | 2008E | 2009E | 2010E | 2011E | 2012E | 2013E | 2014E | 2015E | 2016E | 2017E | 2018E |
|--|----------------|--|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Revenue | \$1,485 | \$2,138 | \$3,252 | \$4,291 | \$5,453 | \$6,712 | \$7,992 | \$9,318 | \$10,630 | \$11,861 | \$12,939 |
| Revenue y/y growth | 199% | 44% | 52% | 32% | 27% | 23% | 19% | 17% | 14% | 12% | 9% |
| EBIT | \$292 | \$423 | \$639 | \$894 | \$1,219 | \$1,343 | \$1,416 | \$1,464 | \$1,564 | \$1,627 | \$1,645 |
| EBIT Margin | 20% | 20% | 20% | 21% | 22% | 20% | 18% | 16% | 15% | 14% | 13% |
| NOPAT | \$218 | \$315 | \$476 | \$666 | \$909 | \$1,001 | \$1,055 | \$1,091 | \$1,165 | \$1,212 | \$1,226 |
| + Depreciation and amortization | \$48 | \$67 | \$90 | \$117 | \$145 | \$176 | \$210 | \$245 | \$281 | \$317 | \$352 |
| - Capital expenditures | (281) | (261) | (300) | (342) | (337) | (374) | (400) | (420) | (431) | (433) | (425) |
| - Increase/(decrease) In working capital | (203) | (74) | (180) | (174) | (172) | (189) | (208) | (228) | (251) | (276) | (304) |
| Free Cash Flow | (\$218) | \$48 | \$85 | \$266 | \$545 | \$615 | \$657 | \$687 | \$764 | \$819 | \$849 |
| NPV at 12/02/2009 Discounted at 12.5% | | 48 | 75 | 208 | 379 | 380 | 361 | 336 | 332 | 316 | 291 |
| EBITDA | \$340 | \$491 | \$729 | \$1,011 | \$1,365 | \$1,520 | \$1,626 | \$1,709 | \$1,845 | \$1,943 | \$1,997 |
| DCF Valuation for 12/02/2009 | | | | | | | | | | | |
| Net present value of cash flows | \$2,727 | Perpetuity Growth Rate / Terminal Value at 12.5% Discount Rate / Implied EBITDA Multiple | | | | | | | | | |
| Plus NPV of Terminal Value at 5% Growth | 4,076 | 4.0% 4.5% 5.0% 5.5% 6.0% | | | | | | | | | |
| Plus cash & Equivalents | 281 | 10,386 11,088 11,884 12,793 13,843 | | | | | | | | | |
| Less debt and minority interest | (425) | 5.2x 5.6x 6.0x 6.4x 6.9x | | | | | | | | | |
| Implied Equity Value | \$6,659 | Discounted Cash Flow Sensitivity - Discount Rate / Perpetuity Growth Rate | | | | | | | | | |
| Diluted shares outstanding (mm) | 89 | 4.0% 4.5% 5.0% 5.5% 6.0% | | | | | | | | | |
| Implied Equity Value Per Share | \$75 | 11.5% | \$80 | \$84 | \$88 | \$93 | \$99 | \$90 | \$85 | \$79 | \$83 |
| | | 12.0% | \$74 | \$77 | \$81 | \$85 | \$76 | \$71 | \$67 | \$70 | \$76 |
| | | 12.5% | \$69 | \$72 | \$75 | \$79 | \$70 | \$65 | \$61 | \$64 | \$70 |
| | | 13.0% | \$65 | \$67 | \$70 | \$73 | \$65 | \$61 | \$58 | \$61 | \$66 |
| | | 13.5% | \$61 | \$63 | \$65 | \$68 | \$61 | \$58 | \$55 | \$58 | \$63 |
| Base Case (\$ millions except per share data) | | | | | | | | | | | |
| Revenue | \$1,431 | \$1,915 | \$2,543 | \$3,398 | \$4,153 | \$4,994 | \$5,904 | \$6,863 | \$7,840 | \$8,799 | \$9,679 |
| Revenue y/y growth | 189% | 34% | 33% | 34% | 22% | 20% | 18% | 16% | 14% | 12% | 10% |
| EBIT | \$246 | \$301 | \$400 | \$580 | \$757 | \$885 | \$1,017 | \$1,113 | \$1,098 | \$1,056 | \$968 |
| EBIT Margin | 17% | 16% | 16% | 17% | 18% | 18% | 17% | 16% | 14% | 12% | 10% |
| NOPAT | \$183 | \$224 | \$298 | \$432 | \$564 | \$659 | \$758 | \$829 | \$818 | \$787 | \$721 |
| + Depreciation and amortization | \$48 | \$63 | \$79 | \$100 | \$125 | \$151 | \$175 | \$197 | \$217 | \$236 | \$252 |
| - Capital expenditures | (269) | (156) | (239) | (289) | (316) | (304) | (288) | (267) | (244) | (219) | (193) |
| - Increase/(decrease) In working capital | (171) | (68) | (112) | (123) | (122) | (134) | (147) | (162) | (178) | (196) | (216) |
| Free Cash Flow | (\$209) | \$63 | \$26 | \$121 | \$251 | \$372 | \$497 | \$597 | \$612 | \$607 | \$564 |
| NPV at 12/02/2009 Discounted at 12.5% | | 62 | 22 | 94 | 175 | 230 | 273 | 292 | 266 | 234 | 193 |
| EBITDA | \$294 | \$364 | \$478 | \$680 | \$882 | \$1,036 | \$1,191 | \$1,310 | \$1,315 | \$1,291 | \$1,220 |
| DCF Valuation for 12/02/2009 | | | | | | | | | | | |
| Net present value of cash flows | \$1,842 | Perpetuity Growth Rate / Terminal Value at 12.5% Discount Rate / Implied EBITDA Multiple | | | | | | | | | |
| Plus NPV of Terminal Value at 5% Growth | 2,709 | 4.0% 4.5% 5.0% 5.5% 6.0% | | | | | | | | | |
| Plus cash & Equivalents | 291 | 6,902 7,368 7,897 8,502 9,199 | | | | | | | | | |
| Less debt and minority interest | (425) | 5.7x 6.0x 6.5x 7.0x 7.5x | | | | | | | | | |
| Implied Equity Value | \$4,417 | Discounted Cash Flow Sensitivity - Discount Rate / Perpetuity Growth Rate | | | | | | | | | |
| Diluted shares outstanding (mm) | 89 | 4.0% 4.5% 5.0% 5.5% 6.0% | | | | | | | | | |
| Implied Equity Value Per Share | \$50 | 11.5% | \$53 | \$56 | \$59 | \$62 | \$66 | \$60 | \$57 | \$52 | \$55 |
| | | 12.0% | \$49 | \$51 | \$54 | \$57 | \$50 | \$46 | \$44 | \$46 | \$50 |
| | | 12.5% | \$46 | \$48 | \$50 | \$52 | \$44 | \$41 | \$39 | \$41 | \$45 |
| | | 13.0% | \$43 | \$44 | \$46 | \$48 | \$41 | \$38 | \$36 | \$38 | \$42 |
| | | 13.5% | \$40 | \$42 | \$43 | \$45 | \$38 | \$35 | \$33 | \$35 | \$39 |
| Bear Case (\$ millions except per share data) | | | | | | | | | | | |
| Revenue | \$1,362 | \$1,748 | \$2,364 | \$2,813 | \$3,208 | \$3,660 | \$4,138 | \$4,637 | \$5,151 | \$5,669 | \$6,183 |
| Revenue y/y growth | 177% | 28% | 35% | 19% | 14% | 14% | 13% | 12% | 11% | 10% | 9% |
| EBIT | \$233 | \$255 | \$285 | \$295 | \$301 | \$300 | \$318 | \$357 | \$396 | \$436 | \$476 |
| EBIT Margin | 17% | 15% | 12% | 10% | 9% | 8% | 8% | 8% | 8% | 8% | 8% |
| NOPAT | \$174 | \$190 | \$213 | \$220 | \$225 | \$223 | \$237 | \$266 | \$295 | \$325 | \$355 |
| + Depreciation and amortization | \$48 | \$65 | \$82 | \$101 | \$118 | \$135 | \$152 | \$167 | \$182 | \$196 | \$209 |
| - Capital expenditures | (269) | (203) | (223) | (214) | (211) | (204) | (196) | (187) | (177) | (165) | (153) |
| - Increase/(decrease) In working capital | (128) | (67) | (112) | (68) | (64) | (70) | (77) | (85) | (94) | (103) | (113) |
| Free Cash Flow | (\$176) | (\$15) | (\$39) | \$39 | \$68 | \$84 | \$115 | \$161 | \$207 | \$253 | \$297 |
| NPV at 12/02/2009 Discounted at 12.5% | | (15) | (35) | 30 | 47 | 52 | 63 | 79 | 90 | 97 | 102 |
| EBITDA | \$281 | \$320 | \$368 | \$396 | \$420 | \$435 | \$470 | \$524 | \$578 | \$632 | \$684 |
| DCF Valuation for 12/02/2009 | | | | | | | | | | | |
| Net present value of cash flows | \$512 | Perpetuity Growth Rate / Terminal Value at 12.5% Discount Rate / Implied EBITDA Multiple | | | | | | | | | |
| Plus NPV of Terminal Value at 5% Growth | 1,424 | 4.0% 4.5% 5.0% 5.5% 6.0% | | | | | | | | | |
| Plus cash & Equivalents | 264 | 3,630 3,875 4,153 4,471 4,838 | | | | | | | | | |
| Less debt and minority interest | (425) | 5.3x 5.7x 6.1x 6.5x 7.1x | | | | | | | | | |
| Implied Equity Value | \$1,776 | Discounted Cash Flow Sensitivity - Discount Rate / Perpetuity Growth Rate | | | | | | | | | |
| Diluted shares outstanding (mm) | 89 | 4.0% 4.5% 5.0% 5.5% 6.0% | | | | | | | | | |
| Implied Equity Value Per Share | \$20 | 11.5% | \$22 | \$23 | \$24 | \$26 | \$28 | \$25 | \$24 | \$21 | \$23 |
| | | 12.0% | \$20 | \$21 | \$22 | \$24 | \$21 | \$19 | \$18 | \$19 | \$21 |
| | | 12.5% | \$18 | \$19 | \$20 | \$21 | \$18 | \$17 | \$16 | \$17 | \$19 |
| | | 13.0% | \$17 | \$17 | \$18 | \$19 | \$16 | \$15 | \$14 | \$15 | \$17 |
| | | 13.5% | \$15 | \$16 | \$17 | \$18 | \$15 | \$14 | \$13 | \$14 | \$16 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

December 2, 2008

Clean Energy

Exhibit 19

SPWRA Quarterly Income Statement

| \$US in millions, except per share and as otherwise noted | 2008E | | | | 2009E | | | |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | 3/08 | 6/08 | 9/08 | 12/08E | 3/09E | 6/09E | 9/09E | 12/09E |
| Components revenue | 94.9 | 112.2 | 184.2 | 229.2 | 232.9 | 252.4 | 252.7 | 256.7 |
| Systems revenue | 178.9 | 270.6 | 193.3 | 168.2 | 186.3 | 217.0 | 245.5 | 271.5 |
| Total Revenue | \$273.7 | \$382.8 | \$377.5 | \$397.4 | \$419.2 | \$469.5 | \$498.1 | \$528.2 |
| Components cost of revenue | \$70.8 | 76.6 | 112.0 | 154.0 | 157.8 | 175.8 | 181.0 | 179.9 |
| Systems cost of revenue | \$137.2 | 205.1 | 155.3 | 138.7 | 146.4 | 173.7 | 193.5 | 211.6 |
| Cost of revenue total (non-GAAP) | \$208.0 | 281.7 | 267.3 | 292.7 | 304.2 | 349.5 | 374.6 | 391.5 |
| Gross profit | \$65.7 | \$101.1 | \$110.2 | \$104.7 | \$115.0 | \$120.0 | \$123.6 | \$136.6 |
| R&D (non-GAAP) | \$3.8 | 3.8 | 5.1 | 5.3 | 5.6 | 5.9 | 6.2 | 6.5 |
| SG&A (non-GAAP) | \$22.8 | 29.6 | 31.8 | 33.4 | 36.7 | 40.4 | 44.4 | 48.8 |
| Total operating expenses | \$26.6 | \$33.4 | \$36.8 | \$38.7 | \$42.3 | \$46.2 | \$50.6 | \$55.3 |
| Operating income | \$39.1 | \$67.7 | \$73.3 | \$66.1 | \$72.7 | \$73.8 | \$73.0 | \$81.3 |
| Foreign currency gain (loss) | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Interest and other income (expense), net | \$3.0 | (\$1.4) | (\$0.8) | \$1.0 | (\$0.2) | \$0.1 | \$0.3 | \$0.6 |
| Pre-tax income | \$42.1 | 66.3 | 72.5 | 67.1 | 72.5 | 73.9 | 73.3 | 81.9 |
| Income tax expense | \$9.7 | 14.9 | 21.8 | 16.8 | 18.9 | 19.2 | 19.1 | 21.3 |
| Net income (non-GAAP) | \$32.4 | \$51.4 | \$50.7 | \$50.3 | \$53.7 | \$54.7 | \$54.2 | \$60.6 |
| Net income (GAAP) | \$12.8 | \$28.6 | \$21.4 | \$26.3 | \$27.2 | \$24.7 | \$21.5 | \$21.9 |
| Diluted EPS (non-GAAP) | \$0.39 | \$0.61 | \$0.60 | \$0.58 | \$0.61 | \$0.62 | \$0.61 | \$0.68 |
| Diluted EPS (GAAP) | \$0.15 | \$0.34 | \$0.25 | \$0.30 | \$0.31 | \$0.28 | \$0.24 | \$0.25 |
| Weighted average shares outstanding basic | 79.0 | 79.4 | 80.5 | 84.2 | 84.6 | 85.1 | 85.5 | 85.9 |
| Weighted average shares outstanding diluted | 83.7 | 84.0 | 84.5 | 87.4 | 87.8 | 88.3 | 88.7 | 89.2 |
| Margin Analysis (non-GAAP) | | | | | | | | |
| Components gross margin | 25.4% | 31.7% | 39.2% | 32.8% | 32.3% | 30.4% | 28.4% | 29.9% |
| System gross margin | 23.3% | 24.2% | 19.7% | 17.6% | 21.4% | 20.0% | 21.1% | 22.0% |
| Blended gross margin | 24.0% | 26.4% | 29.2% | 26.4% | 27.4% | 25.6% | 24.8% | 25.9% |
| Operating margin | 14.3% | 17.7% | 19.4% | 16.6% | 17.3% | 15.7% | 14.7% | 15.4% |
| Net margin | 11.8% | 13.4% | 13.4% | 12.7% | 12.8% | 11.6% | 10.9% | 11.5% |
| Effective tax rate | 23.0% | 22.5% | 30.1% | 25.0% | 26.0% | 26.0% | 26.0% | 26.0% |
| Expense Analysis | | | | | | | | |
| R&D (% of rev) | 1.4% | 1.0% | 1.3% | 1.3% | 1.3% | 1.2% | 1.2% | 1.2% |
| SG&A (% of rev) | 8.3% | 7.7% | 8.4% | 8.4% | 8.8% | 8.6% | 8.9% | 9.2% |
| Operating expenses (% of rev) | 9.7% | 8.7% | 9.8% | 9.7% | 10.1% | 9.8% | 10.1% | 10.5% |
| Growth Analysis (y/y) | | | | | | | | |
| Revenue | 91.2% | 119.9% | 61.1% | 77.1% | 53.2% | 22.7% | 32.0% | 32.9% |
| Operating expenses | 65.1% | 86.2% | 76.3% | 58.7% | 58.9% | 38.3% | 37.3% | 43.0% |
| Diluted EPS (non-GAAP) | 25.5% | 146.3% | 84.5% | 48.4% | 57.7% | 1.3% | 1.9% | 18.1% |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

December 2, 2008

Clean Energy

Exhibit 20

SPWRA Annual Income Statement

| \$US in millions, except per share and as otherwise noted | Fiscal Year | | | | | |
|--|----------------|------------------|------------------|------------------|------------------|------------------|
| | 2007 | 2008E | 2009E | 2010E | 2011E | 2012E |
| Components revenue | 311.2 | 620.4 | 994.7 | 1,085.7 | 1,000.0 | 1,241.5 |
| Systems revenue | 464.7 | 811.0 | 920.3 | 1,456.8 | 2,397.8 | 2,911.8 |
| Total Revenue | \$775.9 | \$1,431.3 | \$1,915.0 | \$2,542.5 | \$3,397.8 | \$4,153.3 |
| Components cost of revenue | 231.9 | 413.4 | 694.5 | 744.2 | 663.8 | 817.0 |
| Systems cost of revenue | 357.9 | 636.2 | 725.3 | 1,120.1 | 1,794.6 | 2,161.8 |
| Cost of revenue total (non-GAAP) | 589.7 | 1,049.7 | 1,419.8 | 1,864.3 | 2,458.4 | 2,978.8 |
| Gross profit | \$186.2 | \$381.7 | \$495.2 | \$678.2 | \$939.4 | \$1,174.5 |
| R&D (non-GAAP) | 11.7 | 18.0 | 24.1 | 29.2 | 35.5 | 43.2 |
| SG&A (non-GAAP) | 67.6 | 117.5 | 170.3 | 249.3 | 323.6 | 374.6 |
| Total operating expenses | \$79.3 | \$135.5 | \$194.4 | \$278.6 | \$359.2 | \$417.8 |
| Operating income | \$106.9 | \$246.2 | \$300.8 | \$399.6 | \$580.2 | \$756.8 |
| Foreign currency gain (loss) | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Interest and other income (expense), net | \$9.2 | \$1.8 | \$0.9 | \$3.7 | \$7.2 | \$14.8 |
| Pre-tax income | 116.1 | 248.0 | 301.6 | 403.3 | 587.4 | 771.5 |
| Income tax expense | 12.8 | 63.2 | 78.4 | 104.9 | 152.7 | 200.6 |
| Net income (non-GAAP) | \$103.2 | \$184.8 | \$223.2 | \$298.4 | \$434.7 | \$570.9 |
| Net income (GAAP) | \$9.2 | \$89.0 | \$95.2 | \$147.0 | \$270.7 | \$393.4 |
| Diluted EPS (non-GAAP) | \$1.27 | \$2.17 | \$2.52 | \$3.30 | \$4.72 | \$6.07 |
| Diluted EPS (GAAP) | \$0.11 | \$1.05 | \$1.08 | \$1.63 | \$2.94 | \$4.18 |
| Weighted average shares outstanding basic | 76.0 | 80.8 | 85.3 | 87.0 | 88.7 | 90.5 |
| Weighted average shares outstanding diluted | 80.9 | 84.9 | 88.5 | 90.3 | 92.1 | 94.0 |
| Margin Analysis (non-GAAP) | | | | | | |
| Components gross margin | 25.5% | 33.4% | 30.2% | 31.5% | 33.6% | 34.2% |
| System gross margin | 23.0% | 21.5% | 21.2% | 23.1% | 25.2% | 25.8% |
| Blended gross margin | 24.0% | 26.7% | 25.9% | 26.7% | 27.6% | 28.3% |
| Operating margin | 13.8% | 17.2% | 15.7% | 15.7% | 17.1% | 18.2% |
| Net margin | 13.3% | 12.9% | 11.7% | 11.7% | 12.8% | 13.7% |
| Effective tax rate | 11.1% | 25.5% | 26.0% | 26.0% | 26.0% | 26.0% |
| Expense Analysis | | | | | | |
| R&D (% of rev) | 1.5% | 1.3% | 1.3% | 1.1% | 1.0% | 1.0% |
| SG&A (% of rev) | 8.7% | 8.2% | 8.9% | 9.8% | 9.5% | 9.0% |
| Operating expenses (% of rev) | 10.2% | 9.5% | 10.1% | 11.0% | 10.6% | 10.1% |
| Growth Analysis (y/y) | | | | | | |
| Revenue | 228.1% | 84.5% | 33.8% | 32.8% | 33.6% | 22.2% |
| Operating expenses | 190.1% | 70.9% | 43.4% | 43.3% | 28.9% | 16.3% |
| Diluted EPS (non-GAAP) | 108.8% | 71.2% | 16.0% | 31.0% | 42.8% | 28.8% |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

December 2, 2008

Clean Energy

Exhibit 21

SPWRA Annual Balance Sheet

| \$US in millions, except per share and as otherwise noted | Fiscal Year | | | | | | | |
|--|----------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | 2005 | 2006 | 2007E | 2008E | 2009E | 2010E | 2011E | 2012E |
| ASSETS | | | | | | | | |
| Cash and cash equivalents | \$143.6 | \$165.6 | \$285.2 | \$106.6 | \$213.2 | \$292.6 | \$473.1 | \$793.8 |
| Restricted cash | 0.0 | 0.0 | 67.9 | 48.0 | 48.0 | 48.0 | 48.0 | 48.0 |
| Short-term investments | 0.0 | 16.5 | 105.5 | 39.0 | 39.0 | 39.0 | 39.0 | 39.0 |
| Accounts receivables | 25.5 | 51.7 | 138.3 | 234.7 | 307.4 | 416.9 | 534.6 | 649.2 |
| Cost and estimated earnings in excess of billings | 0.0 | 0.0 | 39.1 | 56.7 | 56.7 | 56.7 | 56.7 | 56.7 |
| Inventories | 13.1 | 22.8 | 140.5 | 231.7 | 301.4 | 397.9 | 504.2 | 611.5 |
| Deferred project costs | 0.0 | 15.4 | 8.3 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| Prepaid expenses and other current assets | 3.0 | 16.7 | 33.1 | 64.2 | 70.8 | 78.2 | 86.3 | 95.3 |
| Current portion of advances to suppliers | 0.3 | 0.0 | 52.3 | 60.1 | 60.1 | 60.1 | 60.1 | 60.1 |
| Total Current Assets | 185.5 | 288.6 | 870.1 | 852.9 | 1,108.6 | 1,401.4 | 1,814.0 | 2,365.6 |
| Property & equipment net | 110.6 | 202.4 | 378.0 | 642.7 | 736.0 | 896.5 | 1,085.1 | 1,275.8 |
| Advances to suppliers, net of current portion | 0.0 | 62.2 | 108.9 | 84.8 | 84.8 | 84.8 | 84.8 | 84.8 |
| Goodwill | 2.9 | 2.9 | 184.7 | 196.4 | 196.4 | 196.4 | 196.4 | 196.4 |
| Intangible assets, net | 18.7 | 14.0 | 50.9 | 40.1 | 25.3 | 25.3 | 25.3 | 25.3 |
| Other long-term assets | 0.0 | 6.6 | 61.0 | 146.4 | 146.4 | 146.4 | 146.4 | 146.4 |
| TOTAL ASSETS | \$317.7 | \$576.8 | \$1,653.7 | \$1,963.2 | \$2,297.4 | \$2,750.7 | \$3,351.9 | \$4,094.3 |
| LIABILITIES AND SHAREHOLDERS' EQUITY | | | | | | | | |
| Accounts payable | 14.2 | 26.5 | 119.9 | 219.9 | 300.6 | 402.3 | 511.2 | 620.3 |
| Accounts payable to Cypress | 2.5 | 2.9 | 4.9 | 17.8 | 17.8 | 17.8 | 17.8 | 17.8 |
| Accrued liabilities | 4.5 | 18.6 | 79.4 | 92.8 | 92.8 | 92.8 | 92.8 | 92.8 |
| Billings in excess of costs and estimated earnings | - | - | 69.9 | 9.6 | 9.6 | 9.6 | 9.6 | 9.6 |
| Current portion of customer advances | 9.0 | 12.3 | 9.3 | 19.9 | 19.9 | 19.9 | 19.9 | 19.9 |
| Total current liabilities | 30.2 | 60.3 | 283.3 | 360.2 | 440.9 | 542.6 | 651.5 | 760.6 |
| Convertible debt | - | - | 425.0 | 425.0 | 425.0 | 425.0 | 425.0 | 425.0 |
| Deferred tax liability | 0.3 | 0.0 | 6.2 | 9.3 | 9.3 | 9.3 | 9.3 | 9.3 |
| Customer advances, net of current portion | 28.4 | 27.7 | 60.2 | 96.6 | 96.6 | 96.6 | 96.6 | 96.6 |
| Other non current liabilities | - | - | 15.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 |
| Total long-term liabilities | 28.8 | 27.7 | 506.3 | 551.9 | 551.9 | 551.9 | 551.9 | 551.9 |
| TOTAL LIABILITIES | \$59.0 | \$88.1 | \$789.6 | \$912.0 | \$992.7 | \$1,094.4 | \$1,203.4 | \$1,312.5 |
| Common Stock | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Additional paid-in capital | 316.6 | 522.8 | 881.1 | 980.5 | 1138.7 | 1343.4 | 1565.0 | 1804.8 |
| Accumulated deficit | (58.5) | (32.0) | (22.8) | 66.2 | 161.4 | 308.4 | 579.1 | 972.5 |
| Accumulated other comprehensive loss | 0.5 | (2.1) | 5.8 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 |
| Total Shareholders' equity | \$258.7 | \$488.8 | \$864.1 | \$1,051.2 | \$1,304.7 | \$1,656.3 | \$2,148.6 | \$2,781.8 |
| Total Liabilities and Shareholders' equity | \$317.7 | \$576.8 | \$1,653.7 | \$1,963.2 | \$2,297.4 | \$2,750.7 | \$3,351.9 | \$4,094.3 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

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Exhibit 22

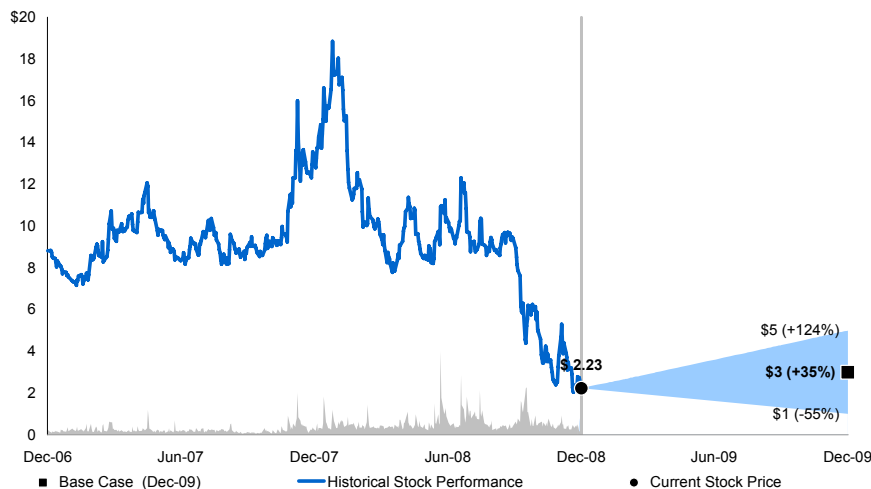
SPWRA Cash Flow Statement

| \$US in millions, except per share and as otherwise noted | Fiscal Year | | | | | | | |
|--|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | 2005 | 2006 | 2007E | 2008E | 2009E | 2010E | 2011E | 2012E |
| Cash flows from operating activities | | | | | | | | |
| Net income (loss) | (\$15.8) | \$26.5 | \$9.2 | \$89.0 | \$95.2 | \$147.0 | \$270.7 | \$393.4 |
| Interest expense related warrants | 3.4 | - | - | - | - | - | - | - |
| Depreciation | 7.1 | 16.4 | 27.3 | 47.7 | 63.1 | 78.7 | 100.0 | 125.4 |
| Amortization of intangibles | 4.7 | 4.7 | 28.5 | 16.8 | 14.7 | - | - | - |
| Impairment charge related to equipment | 0.5 | - | - | - | - | - | - | - |
| Amortization of debt issue costs | - | - | 1.7 | 1.0 | - | - | - | - |
| Impairment of Acquisition related intangibles | - | - | 22.3 | 3.1 | - | - | - | - |
| Stock-based compensation | 1.6 | 4.9 | 51.2 | 79.9 | 158.2 | 204.7 | 221.6 | 239.8 |
| (Gain) loss of fixed assets | 0.1 | (0.0) | (0.0) | - | - | - | - | - |
| Purchased in-process research and development | - | - | 9.6 | - | - | - | - | - |
| Deferred income taxes and other tax liabilities | - | 11.1 | (9.4) | 48.3 | - | - | - | - |
| Other operating cash flow | - | - | - | (37.9) | - | - | - | - |
| Changes in operating assets and liabilities: | | | | | | | | |
| Accounts receivable | (20.9) | (26.2) | (42.7) | (96.2) | (72.7) | (109.5) | (117.7) | (114.6) |
| Costs and estimated earnings in excess of billings | - | - | (32.6) | (17.7) | - | - | - | - |
| Inventories | (8.7) | (9.6) | (87.0) | (85.8) | (69.7) | (96.5) | (106.3) | (107.3) |
| Prepaid expenses and other current assets | 0.1 | (3.7) | (11.5) | (31.2) | (6.7) | (7.4) | (8.1) | (9.0) |
| Deferred project costs | - | - | 17.8 | (3.7) | - | - | - | - |
| Advances to suppliers | (0.3) | (77.4) | (83.6) | 19.1 | - | - | - | - |
| Accounts payable & accrued expenses | 2.6 | 12.3 | 40.3 | 45.5 | 80.7 | 101.7 | 108.9 | 109.1 |
| Accounts payable to Cypress | 6.1 | 0.4 | 1.9 | 13.0 | - | - | - | - |
| Billings in excess of costs and estimated earnings | 0.0 | - | 29.9 | (60.1) | - | - | - | - |
| Advances from customers | 37.4 | 2.6 | 29.4 | 45.9 | - | - | - | - |
| Net cash used in operating activities | \$17.8 | (\$38.0) | \$2.4 | \$76.7 | \$263.0 | \$318.7 | \$469.0 | \$636.9 |
| Cash flows from investing activities | | | | | | | | |
| Decrease in restricted cash | - | - | (\$63.2) | (\$42.2) | - | - | - | - |
| Purchase of property and equipment | (71.6) | (108.3) | (193.5) | (269.2) | (156.4) | (239.3) | (288.6) | (316.1) |
| Proceeds from sale of fixed assets | 1.3 | 0.1 | 0.1 | - | - | - | - | - |
| Purchase of marketable securities | - | (34.0) | (209.6) | (65.7) | - | - | - | - |
| Proceeds from sale of marketable securities | - | 17.5 | 91.6 | 133.9 | - | - | - | - |
| Note receivable | - | (10.0) | - | - | - | - | - | - |
| Investment in joint venture | - | (5.0) | (0.9) | (24.6) | - | - | - | - |
| Cash paid for acquisition, net of cash acquired | - | - | (98.6) | (18.3) | - | - | - | - |
| Other long-term assets | - | (1.6) | - | - | - | - | - | - |
| Net cash used in investing activities | (\$70.4) | (\$141.3) | (\$474.1) | (\$286.1) | (\$156.4) | (\$239.3) | (\$288.6) | (\$316.1) |
| Cash flows from financing activities | | | | | | | | |
| Proceeds from the issuance of common stock | \$173.0 | \$197.4 | \$167.4 | - | - | - | - | - |
| Proceeds from notes payable to related party | 12.5 | - | - | - | - | - | - | - |
| Proceeds from issuance of preferred stock | 7.0 | - | - | - | - | - | - | - |
| Prepayments of notes payable to related party | (0.2) | - | (3.6) | - | - | - | - | - |
| Repayment of long-term debt | - | - | - | - | - | - | - | - |
| Equity contributions | - | - | - | - | - | - | - | - |
| Proceeds from stock options exercised | 0.2 | 3.9 | 8.7 | 3.8 | - | - | - | - |
| Proceeds from debt | - | - | 425.0 | - | - | - | - | - |
| Tax benefit from options | - | - | - | 33.9 | - | - | - | - |
| Debt issuance costs | - | - | (10.9) | - | - | - | - | - |
| Proceeds from economic development | - | - | - | - | - | - | - | - |
| Other financing activities | - | - | (2.0) | (5.9) | - | - | - | - |
| Net cash provided by financing activities | \$192.4 | \$201.3 | \$584.6 | \$31.8 | - | - | - | - |
| Effect of exchange rate changes on cash | - | - | 6.7 | (1.2) | - | - | - | - |
| Net increase/decrease in cash and equivalents | \$139.8 | \$22.0 | \$112.9 | (\$177.5) | \$106.6 | \$79.4 | \$180.5 | \$320.8 |
| Cash and equivalents at beg of period | \$3.8 | \$143.6 | \$165.6 | \$285.2 | \$106.6 | \$213.2 | \$292.6 | \$473.1 |
| Cash and equivalents at end of period | \$143.6 | \$165.6 | \$285.2 | \$106.6 | \$213.2 | \$292.6 | \$473.1 | \$793.8 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

Evergreen Solar (ESLR, \$2, Equal-weight)

Litigation, Liquidity and Lackluster Execution Limit Upside



Source: FactSet, Morgan Stanley Research

| | | |
|--------------------------------|---|--|
| Bull Case \$5 | ~10x Bull Case 2010 EPS of \$0.54 | ESLR executes according to guidance on its expansion plan, producing 254MW in 2010, while achieving substantial cost savings through silicon utilization, production efficiencies and conversion efficiency. In this scenario, gross margins reach a high of 31% in 2009 and then level out in the mid 20s by 2012. This scenario assumes complete successful execution of transition to "quad ribbon" based on company guidance. |
| Base Case \$3 | ~10x Base Case 2010 EPS of \$0.30 | ESLR fails to execute on expansion due to an inability to raise financing, producing only 116MW in 2010. Company struggles to compete in an environment of rapidly declining ASPs in the middle market. Lawsuit with Barclay's diverts management attention and resources from plan execution. |
| Bear Case \$1 | ~10x Bear Case 2010 EPS of \$0.09 | Company struggles for survival amidst an intense middle market price war. Expansion falls short of expectations with production reaching ~116MW in 2009, while at the same time, ESLR fails to achieve production cost reduction goals. Module prices fall faster than anticipated and margins trend in the high teens. |

Investment Thesis

- Our 2009e GAAP EPS of (\$0.03) is well below consensus of \$0.29 and represent our revised view that ESLR underestimates the cost of litigation with Barclay's, fails to raise the financing required to continue its expansion, and misses delivery on a portion of its contract backlog.
- Weak macroeconomic fundamentals and high financing costs pressure industry ASPs in 2009.
- FX remains a headwind.
- US clean energy policy acts as catalyst, but implementation takes time.

Key Value Drivers

- Technology: Lowest grams of silicon per Watt.
- Long-term sales visibility: Contract backlog of more than 1GW.
- Clean energy policy / regulation.

Potential Catalysts

- Passage of a US National Renewable Electricity Standard (RES).
- Outcome of UN climate change negotiations in December 2008.
- Litigation milestones.
- 4Q08 earnings.

Key Concerns

- Cost of Barclays litigation.
- Management's ability to deliver on Marlboro expansion / contract fulfillment.
- Margin pressure from rapidly declining ASPs.
- Ability to raise financing.

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Exhibit 23

ESLR Scenario Output

| Bull Case | 2006 | 2007 | 2008E | 2009E | 2010E |
|-------------------------|-------------|-------------|--------------|--------------|--------------|
| Revenue (\$ million) | \$103 | \$70 | \$125 | \$435 | \$682 |
| Gross margin | 12% | 25% | 18% | 31% | 30% |
| Net income (\$ million) | (\$21.6) | (\$10.3) | (\$41.2) | \$39.7 | \$106.0 |
| EPS | (\$0.33) | (\$0.12) | (\$0.32) | \$0.24 | \$0.54 |
| Module Production (MW) | NA | 16 | 29 | 137 | 254 |
| Module (ASP/MW) | NA | \$3.43 | \$3.67 | \$3.10 | \$2.65 |
| Base Case | 2006 | 2007 | 2008E | 2009E | 2010E |
| Revenue (\$ million) | \$103 | \$70 | \$113 | \$309 | \$310 |
| Gross margin | 12% | 25% | 17% | 31% | 29% |
| Net income (\$ million) | (\$21.6) | (\$10.3) | (\$44.2) | \$3.4 | \$59.5 |
| EPS | (\$0.33) | (\$0.12) | (\$0.34) | \$0.02 | \$0.30 |
| Module Production (MW) | 12 | 16 | 26 | 100 | 116 |
| Module (ASP/MW) | NA | \$3.43 | \$3.65 | \$2.97 | \$2.54 |
| Bear Case | 2006 | 2007 | 2008E | 2009E | 2010E |
| Revenue (\$ million) | \$103 | \$70 | \$111 | \$277 | \$279 |
| Gross margin | 12% | 25% | 15% | 19% | 18% |
| Net income (\$ million) | (\$21.6) | (\$10.3) | (\$45.4) | (\$38.3) | \$17.1 |
| EPS | (\$0.33) | (\$0.12) | (\$0.35) | (\$0.23) | \$0.09 |
| Module Production (MW) | NA | 16 | 26 | 99 | 116 |
| Module (ASP/MW) | NA | \$3.43 | \$3.64 | \$2.68 | \$2.27 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

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Exhibit 24

ESLR Discounted Earnings Valuation

| (US\$ in millions except per share data) | Bear Case | | | Base Case | | | Bull Case | | |
|--|---------------------------------------|--------|--------|-----------|---------|---------|-----------|---------|---------|
| C2010 Revenue Estimate | \$279 | | | \$310 | | | \$682 | | |
| C2006 - C2010E Revenue CAGR | 28% | | | 32% | | | 60% | | |
| Net Margin Sensitivity | 5% | 6% | 7% | 18% | 19% | 20% | 15% | 16% | 17% |
| Implied C2010E Net Income | \$14 | \$17 | \$20 | \$56 | \$60 | \$63 | \$99 | \$106 | \$113 |
| Implied C2010E EPS | \$0.07 | \$0.09 | \$0.10 | \$0.28 | \$0.30 | \$0.31 | \$0.49 | \$0.53 | \$0.56 |
| C2006 - C2010E EPS CAGR | nm | nm | nm | nm | nm | nm | nm | nm | nm |
| P/E Multiple | Equity Value / Equity Value Per Share | | | | | | | | |
| 5x | \$71 | \$84 | \$98 | \$278 | \$294 | \$309 | \$489 | \$523 | \$556 |
| | \$0 | \$0 | \$0 | \$1 | \$1 | \$2 | \$2 | \$3 | \$3 |
| 10x | \$141 | \$169 | \$196 | \$557 | \$588 | \$618 | \$978 | \$1,046 | \$1,113 |
| | \$1 | \$1 | \$1 | \$3 | \$3 | \$3 | \$5 | \$5 | \$6 |
| 15x | \$212 | \$253 | \$295 | \$835 | \$881 | \$927 | \$1,467 | \$1,568 | \$1,669 |
| | \$1 | \$1 | \$1 | \$4 | \$4 | \$5 | \$7 | \$8 | \$8 |
| 20x | \$283 | \$338 | \$393 | \$1,114 | \$1,175 | \$1,236 | \$1,957 | \$2,091 | \$2,226 |
| | \$1 | \$2 | \$2 | \$6 | \$6 | \$6 | \$10 | \$10 | \$11 |
| 25x | \$353 | \$422 | \$491 | \$1,392 | \$1,469 | \$1,546 | \$2,446 | \$2,614 | \$2,782 |
| | \$2 | \$2 | \$2 | \$7 | \$7 | \$8 | \$12 | \$13 | \$14 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

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Exhibit 25

ESLR Quarterly Income Statement

| \$US in millions, except per share and as otherwise noted | 2008 | | | | 2009 | | | |
|--|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|---------------|---------------|
| | 3/08 | 6/08 | 9/08E | 12/08E | 3/09E | 6/09E | 9/09E | 12/09E |
| Revenue | | | | | | | | |
| Product revenues | \$18.3 | \$18.1 | \$17.8 | \$41.4 | \$61.5 | \$66.4 | \$79.6 | \$88.2 |
| Research revenues | \$4.7 | \$4.6 | \$4.3 | \$4.0 | \$3.1 | \$3.2 | \$3.5 | \$3.7 |
| Total revenue | \$22.9 | \$22.8 | \$22.1 | \$45.4 | \$64.7 | \$69.6 | \$83.1 | \$91.9 |
| Product revenue costs | \$15.2 | \$14.8 | \$20.8 | \$43.0 | \$44.3 | \$48.5 | \$58.0 | \$63.9 |
| Research revenue costs | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Cost of revenue (excl. stock comp) | \$15.2 | \$14.8 | \$20.8 | \$43.0 | \$44.3 | \$48.5 | \$58.0 | \$63.9 |
| Gross profit | \$7.8 | \$8.0 | \$1.3 | \$2.3 | \$20.4 | \$21.1 | \$25.1 | \$28.0 |
| R&D (excl. stock comp) | \$4.4 | \$5.3 | \$5.0 | \$6.5 | \$6.5 | \$6.5 | \$6.5 | \$6.5 |
| SG&A (excl. stock comp) | \$4.0 | \$4.9 | \$5.1 | \$6.7 | \$6.7 | \$6.7 | \$6.7 | \$6.7 |
| Production start-up | \$5.3 | \$11.3 | \$11.7 | \$9.0 | \$10.0 | \$10.0 | \$10.0 | \$10.0 |
| Loss on disposal of fixed assets | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Total operating expenses | \$13.7 | \$21.5 | \$21.8 | \$22.1 | \$23.1 | \$23.1 | \$23.1 | \$23.1 |
| Operating income | (\$5.923) | (\$13.5) | (\$20.5) | (\$19.8) | (\$2.7) | (\$2.0) | \$1.9 | \$4.9 |
| Foreign currency gain (loss) | \$3.8 | (\$0.2) | (\$5.0) | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Gain on investment in EverQ | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Interest income | \$3.0 | \$2.7 | \$4.2 | \$3.3 | \$2.1 | \$0.5 | \$1.3 | \$0.4 |
| Interest expense | (\$0.3) | (\$0.0) | (\$2.5) | (\$2.8) | (\$4.7) | (\$4.7) | (\$6.2) | (\$6.2) |
| Minority interest in EverQ | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Equity income from interest in EverQ | \$1.0 | \$3.7 | \$1.6 | \$3.0 | \$4.0 | \$4.3 | \$5.0 | \$5.7 |
| Pre-tax income | \$1.6 | (\$7.3) | (\$22.2) | (\$16.3) | (\$1.4) | (\$2.0) | \$2.0 | \$4.8 |
| Income tax expense | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Net income (excl. stock comp) | \$1.6 | (\$7.3) | (\$22.2) | (\$16.3) | (\$1.4) | (\$2.0) | \$2.0 | \$4.8 |
| Net income (incl. stock comp) | (\$0.0) | (\$8.9) | (\$23.9) | (\$18.5) | (\$3.5) | (\$4.1) | (\$0.2) | \$2.6 |
| Diluted EPS (excl. stock comp) | \$0.01 | (\$0.06) | (\$0.17) | (\$0.10) | (\$0.01) | (\$0.01) | \$0.01 | \$0.03 |
| Diluted EPS (incl. stock comp) | (\$0.00) | (\$0.08) | (\$0.18) | (\$0.11) | (\$0.02) | (\$0.03) | (\$0.00) | \$0.01 |
| Weighted average shares outstanding basic | 108.8 | 118.3 | 132.0 | 162.0 | 162.4 | 163.2 | 164.0 | 179.5 |
| Weighted average shares outstanding diluted | 108.8 | 118.3 | 132.0 | 162.0 | 166.2 | 167.0 | 167.9 | 183.4 |
| Margin Analysis (excl. stock comp) | | | | | | | | |
| Gross margin | 33.9% | 35.0% | 5.9% | 5.2% | 31.5% | 30.3% | 30.2% | 30.5% |
| Operating margin | -25.8% | -59.5% | -92.7% | -43.6% | -4.2% | -2.9% | 2.3% | 5.3% |
| Net margin | 6.8% | -32.1% | -100.5% | -35.9% | -2.1% | -2.8% | 2.4% | 5.2% |
| Effective tax rate | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Expense Analysis | | | | | | | | |
| R&D (% of rev) | 19.3% | 23.5% | 22.5% | 14.2% | 10.0% | 9.3% | 7.8% | 7.0% |
| SG&A (% of rev) | 17.4% | 21.4% | 23.3% | 14.7% | 10.3% | 9.6% | 8.0% | 7.3% |
| Operating expenses (% of rev) | 59.7% | 94.5% | 98.7% | 48.8% | 35.8% | 33.3% | 27.8% | 25.2% |
| Growth Analysis (y/y) | | | | | | | | |
| Revenue | 62.8% | 47.8% | 21.3% | 104.6% | 181.9% | 205.8% | 276.6% | 102.5% |
| Operating expenses | 58.7% | 133.9% | 133.6% | 125.4% | 68.9% | 7.6% | 6.3% | 4.5% |
| Diluted EPS (excl. stock comp) | NM | NM | NM | NM | NM | NM | NM | -112.5% |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

December 2, 2008

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Exhibit 26

ESLR Annual Income Statement

| \$US in millions, except per share and as otherwise noted | Fiscal Year | | | | | | | |
|--|-----------------|-----------------|-----------------|-----------------|----------------|----------------|----------------|----------------|
| | 2005 | 2006 | 2007 | 2008E | 2009E | 2010E | 2011E | 2012E |
| Revenue | | | | | | | | |
| Product revenues | \$43.6 | \$102.3 | \$58.3 | \$95.6 | \$295.8 | \$294.3 | \$360.9 | \$360.6 |
| Research revenues | \$0.4 | \$0.9 | \$11.5 | \$17.6 | \$13.5 | \$15.9 | \$18.7 | \$21.0 |
| Total revenue | \$44.0 | \$103.1 | \$69.9 | \$113.2 | \$309.3 | \$310.2 | \$379.6 | \$381.6 |
| Product revenue costs | \$40.0 | \$89.9 | \$52.2 | \$93.8 | \$214.6 | \$220.2 | \$292.2 | \$296.4 |
| Research revenue costs | \$0.4 | \$0.9 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Cost of revenue (excl. stock comp) | \$40.4 | \$90.8 | \$52.2 | \$93.8 | \$214.6 | \$220.2 | \$292.2 | \$296.4 |
| Gross profit | \$3.7 | \$12.4 | \$17.6 | \$19.4 | \$94.6 | \$90.0 | \$87.3 | \$85.2 |
| R&D (excl. stock comp) | \$11.1 | \$17.5 | \$19.1 | \$21.2 | \$25.9 | \$25.9 | \$25.9 | \$25.9 |
| SG&A (excl. stock comp) | \$12.3 | \$18.2 | \$16.5 | \$20.7 | \$26.7 | \$26.7 | \$26.7 | \$26.7 |
| Production start-up expense | \$0.0 | \$0.0 | \$1.4 | \$37.2 | \$40.0 | \$0.0 | \$0.0 | \$0.0 |
| Loss on disposal of fixed assets | \$0.0 | \$1.5 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Total operating expenses | \$23.3 | \$37.2 | \$37.0 | \$79.1 | \$92.5 | \$52.5 | \$52.5 | \$52.5 |
| Operating income | (\$19.7) | (\$24.8) | (\$19.3) | (\$59.7) | \$2.1 | \$37.5 | \$34.8 | \$32.7 |
| Foreign currency gain (loss) | \$0.0 | \$3.3 | \$0.4 | (\$1.4) | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Gain on investment in EverQ | \$0.5 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Interest income | \$3.1 | \$4.6 | \$9.8 | \$13.3 | \$4.2 | \$18.7 | \$32.0 | \$44.9 |
| Interest expense | (\$2.5) | (\$6.1) | (\$3.4) | (\$5.7) | (\$21.8) | (\$24.9) | (\$24.9) | (\$24.9) |
| Minority interest in EverQ | \$1.2 | \$0.8 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Equity income from interest in EverQ | \$0.0 | \$0.5 | \$2.2 | \$9.2 | \$18.9 | \$28.3 | \$36.9 | \$48.0 |
| Pre-tax income | (\$17.3) | (\$21.6) | (\$10.3) | (\$44.2) | \$3.4 | \$59.5 | \$78.8 | \$100.6 |
| Income tax expense | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$17.9 | \$30.2 |
| Net income (excl. stock comp) | (\$17.3) | (\$21.6) | (\$10.3) | (\$44.2) | \$3.4 | \$59.5 | \$60.9 | \$70.4 |
| Net income (incl. stock comp) | (\$17.3) | (\$26.7) | (\$16.6) | (\$51.3) | (\$5.2) | \$50.9 | \$54.2 | \$64.3 |
| Diluted EPS (excl. stock comp) | (\$0.29) | (\$0.33) | (\$0.12) | (\$0.34) | \$0.02 | \$0.30 | \$0.30 | \$0.34 |
| Diluted EPS (incl. stock comp) | (\$0.29) | (\$0.41) | (\$0.19) | (\$0.39) | (\$0.03) | \$0.25 | \$0.27 | \$0.31 |
| Weighted average shares outstanding basic | 59.6 | 65.7 | 86.7 | 130.3 | 167.3 | 196.4 | 200.4 | 204.4 |
| Weighted average shares outstanding diluted | 59.6 | 65.7 | 86.7 | 130.3 | 171.1 | 200.4 | 204.4 | 208.5 |
| Margin Analysis (excl. stock comp) | | | | | | | | |
| Gross margin | 8.3% | 12.0% | 25.3% | 17.1% | 30.6% | 29.0% | 23.0% | 22.3% |
| Operating margin | -44.6% | -24.0% | -27.7% | -52.8% | 0.7% | 12.1% | 9.2% | 8.6% |
| Net margin | -39.3% | -20.9% | -14.8% | -39.1% | 1.1% | 19.2% | 16.1% | 18.5% |
| Effective tax rate | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 22.7% | 30.0% |
| Expense Analysis | | | | | | | | |
| R&D (% of rev) | 25.1% | 16.9% | 27.3% | 18.7% | 8.4% | 8.3% | 6.8% | 6.8% |
| SG&A (% of rev) | 27.9% | 17.6% | 23.6% | 18.3% | 8.6% | 8.6% | 7.0% | 7.0% |
| Operating expenses (% of rev) | 53.0% | 36.0% | 52.9% | 69.9% | 29.9% | 16.9% | 13.8% | 13.8% |
| Growth Analysis (y/y) | | | | | | | | |
| Revenue | | 134.4% | -43.0% | 63.8% | 209.5% | -0.5% | 22.6% | -0.1% |
| Operating expenses | | 59.3% | -0.5% | 114.0% | 17.0% | -43.2% | 0.0% | 0.0% |
| Diluted EPS (excl. stock comp) | | NM | NM | NM | NM | 1375.9% | 0.3% | 13.3% |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

December 2, 2008

Clean Energy

Exhibit 27

ESLR Annual Balance Sheet

| \$US in millions, except per share and as otherwise noted | Fiscal Year | | | | | | | |
|--|----------------|----------------|----------------|------------------|------------------|------------------|------------------|------------------|
| | 2005 | 2006 | 2007 | 2008E | 2009E | 2010E | 2011E | 2012E |
| ASSETS | | | | | | | | |
| Cash and cash equivalents | \$30.7 | \$6.8 | \$29.4 | \$118.3 | \$210.0 | \$369.9 | \$571.6 | \$759.9 |
| Restricted cash | - | - | 41.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Marketable securities | 85.5 | 42.6 | 70.3 | 97.3 | 97.3 | 97.3 | 97.3 | 97.3 |
| Accounts receivables | 4.1 | 25.3 | 9.3 | 21.6 | 46.0 | 36.8 | 46.3 | 48.0 |
| Inventories | 3.6 | 4.8 | 8.1 | 16.1 | 24.0 | 20.3 | 27.2 | 27.7 |
| Grants receivables | 16.3 | - | 5.8 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Interest receivables | 0.5 | 0.7 | 0.6 | - | - | - | - | - |
| Taxes receivable (VAT) | - | - | - | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 |
| Other current assets | 4.1 | 1.9 | 17.7 | 17.4 | 21.1 | 25.7 | 31.2 | 37.9 |
| Total Current Assets | \$144.9 | \$82.0 | \$182.2 | \$297.7 | \$425.4 | \$577.0 | \$800.6 | \$997.9 |
| Investment in and advances to EverQ | - | \$70.5 | \$87.9 | \$113.2 | \$113.2 | \$113.2 | \$113.2 | \$113.2 |
| Deposits | 8.2 | 1.4 | - | - | - | - | - | - |
| Long term investments | - | - | - | - | - | - | - | - |
| Restricted cash | 1.6 | 0.4 | 0.4 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Deferred financing costs | 2.9 | 2.4 | 2.0 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 |
| Prepaid Inventory | - | - | 143.0 | 161.6 | 161.6 | 161.6 | 161.6 | 161.6 |
| Fixed assets, net | 71.4 | 50.5 | 114.6 | 443.0 | 642.1 | 530.6 | 416.2 | 299.0 |
| Other Assests | - | - | 23.1 | 46.4 | 46.4 | 46.4 | 46.4 | 46.4 |
| TOTAL ASSETS | \$229.0 | \$207.3 | \$553.3 | \$1,070.0 | \$1,396.8 | \$1,436.9 | \$1,546.1 | \$1,626.1 |
| LIABILITIES AND SHAREHOLDERS' EQUITY | | | | | | | | |
| Accounts payable | \$12.2 | \$18.5 | \$57.0 | \$105.7 | \$151.2 | \$128.0 | \$171.3 | \$174.4 |
| Short term borrowings | - | - | - | - | - | - | - | - |
| EverQ short term borrowings | 4.1 | - | - | - | - | - | - | - |
| Other accrued expenses | 1.6 | 2.4 | 5.4 | 14.5 | 17.7 | 21.5 | 26.1 | 31.8 |
| Taxes payable (VAT) | - | - | - | - | - | - | - | - |
| Accrued debt interest | - | - | 2.0 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Accured employee compensation | 1.8 | 2.8 | 4.9 | 6.5 | 7.9 | 9.6 | 11.7 | 14.2 |
| Accured warranty | 0.7 | 0.7 | 0.7 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Total current liabilities | \$20.4 | \$24.4 | \$70.0 | \$131.3 | \$181.3 | \$163.5 | \$213.6 | \$224.8 |
| Subordinated convertible notes | \$90.0 | \$90.0 | \$90.0 | - | - | - | - | - |
| EverQ deferred grants | 16.3 | - | - | - | - | - | - | - |
| Other long-term debt - EverQ | 3.6 | - | - | - | - | - | - | - |
| Deferred grants | - | - | - | - | - | - | - | - |
| Deferred income taxes | - | - | - | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 |
| Other long-term debt | - | - | - | 373.8 | 498.8 | 498.8 | 498.8 | 498.8 |
| Total long-term liabilities | 109.8 | 90.0 | 90.0 | 382.6 | 507.6 | 507.6 | 507.6 | 507.6 |
| TOTAL LIABILITIES | \$130.3 | \$114.4 | \$160.0 | \$513.8 | \$688.9 | \$671.1 | \$721.1 | \$732.4 |
| Minority interest in EverQ | \$11.2 | - | - | - | - | - | - | - |
| Shareholder's equity | | | | | | | | |
| Common Stock | \$0.6 | \$0.7 | \$1.0 | \$1.6 | \$1.6 | \$1.6 | \$1.6 | \$1.6 |
| Additional paid-in capital | 182.3 | 211.1 | 521.7 | 737.0 | 893.9 | 900.9 | 905.9 | 910.3 |
| Accumulated deficit | (93.0) | (119.7) | (136.3) | (187.5) | (192.7) | (141.9) | (87.6) | (23.3) |
| Deferred compensation | (1.0) | - | - | - | - | - | - | - |
| Accumulated other comprehensive income (loss) | (1.5) | 0.8 | 6.9 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 |
| Total Shareholders' equity | 87.5 | 92.8 | 393.3 | 556.2 | 707.9 | 765.8 | 825.0 | 893.8 |
| Total Liabilities and Shareholders' equity | \$229.0 | \$207.3 | \$553.3 | \$1,070.0 | \$1,396.8 | \$1,436.9 | \$1,546.1 | \$1,626.1 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

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Clean Energy

Exhibit 28

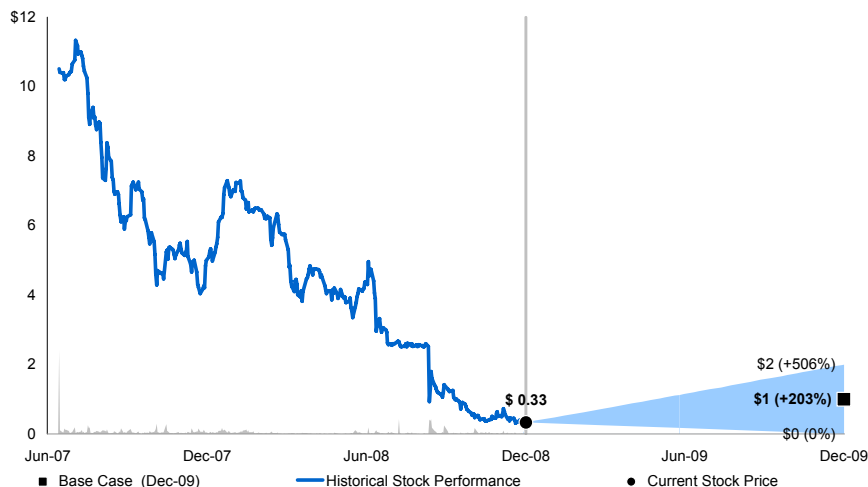
ESLR Annual Cash Flow Statement

| | Fiscal Year | | | | | | | |
|---|------------------|-----------------|------------------|------------------|------------------|-----------------|-----------------|-----------------|
| | 2005 | 2006 | 2007E | 2008E | 2009E | 2010E | 2011E | 2012E |
| <i>\$US in millions, except per share and as otherwise noted</i> | | | | | | | | |
| Cash flows from operating activities | | | | | | | | |
| Net income (loss) | (\$17.3) | (\$26.7) | (\$16.6) | (\$51.3) | (\$5.2) | \$50.9 | \$54.2 | \$64.3 |
| Adjustments: | | | | | | | | |
| Depreciation expense | 4.1 | 9.3 | 7.4 | 35.2 | 103.6 | 129.3 | 132.1 | 134.9 |
| Amortization of deferred grant credits | - | (2.0) | - | - | - | - | - | - |
| Loss on disposal of PP&E | 0.1 | 2.4 | - | 2.1 | 0.3 | 0.3 | 0.3 | 0.3 |
| Minority interest in EverQ | (1.2) | (0.8) | - | - | - | - | - | - |
| Gain on investment in EverQ | (0.5) | - | - | - | - | - | - | - |
| Equity income/loss from EverQ | - | (0.5) | (2.2) | (4.7) | - | - | - | - |
| Bad debt expense and provision for early payment discounts | (0.0) | 0.1 | (0.0) | - | - | - | - | - |
| Amortization of convertible debt financing costs | 0.2 | 0.4 | 0.4 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| Amortization (accretion) of bond premiums | (0.6) | (1.0) | (1.2) | (1.9) | (1.8) | (1.8) | (1.8) | (1.8) |
| Compensation expense associated with employee equity awards | 0.0 | 5.1 | 6.4 | 7.2 | 8.6 | 8.7 | 6.7 | 6.1 |
| Other changes in operating cash flows | - | - | - | - | - | - | - | - |
| Changes in operating assets and liabilities: | | | | | | | | |
| Accounts receivable | 2.1 | (17.4) | 11.0 | (12.3) | (24.3) | 9.2 | (9.5) | (1.7) |
| Interest payable | - | - | 1.4 | (1.8) | (0.0) | (0.0) | (0.0) | (0.0) |
| Grants | - | 19.0 | - | 2.1 | - | - | - | - |
| Prepaid inventory | - | - | (23.1) | (26.9) | - | - | - | - |
| Inventory | (0.7) | (11.0) | (3.3) | (8.0) | (7.9) | 3.6 | (6.9) | (0.5) |
| Interest receivable | (0.5) | (0.1) | 0.0 | 0.2 | - | - | - | - |
| Other current assets | (2.7) | (1.6) | (10.6) | 2.2 | (3.7) | (4.5) | (5.5) | (6.7) |
| Account payable | 9.3 | (0.7) | 16.6 | 51.0 | 45.5 | (23.3) | 43.3 | 3.1 |
| Accrued warranty | - | - | - | 0.3 | - | - | - | - |
| Accrued expense | 0.9 | 15.3 | 1.9 | 3.8 | 4.5 | 5.5 | 6.7 | 8.1 |
| Deferred revenue | (0.4) | - | - | - | - | - | - | - |
| Net cash used in operating activities | (\$7.3) | (\$10.3) | (\$12.0) | (\$2.6) | \$119.7 | \$177.9 | \$219.8 | \$206.4 |
| Cash flows from investing activities | | | | | | | | |
| Purchases of fixed assets and deposits on assets under construction | (\$57.7) | (\$107.7) | (\$50.7) | (385.7) | (305.0) | (20.0) | (20.0) | (20.0) |
| Decrease in deposits on fixed assets under construction / other | - | - | - | 132.1 | - | - | - | - |
| Conversion of EverQ consolidated entity to equity method affiliate | - | (22.3) | - | - | - | - | - | - |
| Decrease (increase) in restricted cash | (1.2) | 0.9 | (41.0) | 17.2 | - | - | - | - |
| Decrease in EverQ & other loans | - | (0.4) | 0.3 | (32.5) | - | - | - | - |
| Purchases of marketable securities | (78.4) | 43.9 | (49.1) | (26.8) | - | - | - | - |
| Net cash used in investing activities | (\$137.3) | (\$85.5) | (\$140.5) | (\$295.7) | (\$305.0) | (\$20.0) | (\$20.0) | (\$20.0) |
| Cash flows from financing activities | | | | | | | | |
| Proceeds from the issuance of common stock | \$62.3 | - | \$170.6 | \$166.7 | \$150.0 | - | - | - |
| Proceeds from convertible debt financing | 86.9 | - | - | (90.0) | - | - | - | - |
| Increase in long-term debt | - | - | - | 355.7 | 125.0 | - | - | - |
| Increase in EverQ debt | 7.7 | 58.7 | - | (10.3) | - | - | - | - |
| Capital contributions to EverQ from minority interest holder | 9.3 | - | - | - | - | - | - | - |
| Proceeds from the sale of EverQ interest to REC | 4.1 | - | - | - | - | - | - | - |
| Increase (decrease) in short-term borrowings | (1.5) | - | - | (37.1) | - | - | - | - |
| Proceeds from exercise of warrants | - | 13.4 | 0.1 | - | - | - | - | - |
| Proceeds from exercise of stock options | 2.3 | 2.8 | 4.4 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 |
| Net cash provided by financing activities | \$171.2 | \$75.0 | \$175.1 | \$387.2 | \$277.0 | \$2.0 | \$2.0 | \$2.0 |
| Effect of exchange rate changes on cash and cash equivalents | (\$1.3) | (\$3.0) | - | - | - | - | - | - |
| Net increase/decrease in cash and equivalents | 25.4 | (23.9) | 22.600 | 88.9 | 91.7 | 159.9 | 201.7 | 188.3 |
| Cash and equivalents at beg of period | \$5.4 | \$30.7 | \$6.8 | \$29.4 | \$118.3 | \$210.0 | \$369.9 | \$571.6 |
| Cash and equivalents at end of period | \$30.7 | \$6.8 | \$29.4 | \$118.3 | \$210.0 | \$369.9 | \$571.6 | \$759.9 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

BioFuel Energy (BIOF, \$0.33, Underweight)

Risk-Reward View: Skewed to the Downside in the Near-Term



Source: FactSet, Morgan Stanley Research

| | | |
|--------------------------------|---|---|
| Bull Case \$2 | 4x 2010e EPS of \$0.32 discounted at 15% | More favorable commodity prices drives upside above our base case estimates. Margins stabilize in 2009 as both corn and ethanol prices retreat, resulting in crush margins of \$0.63 in 2009 to \$0.70 in 2010. Margin stability allows market to focus on profit-based valuations. We derive our fair value estimate by blending multiple valuation methodologies including DCF (10-year, 12% discount rate) and DCE (4x 2010e EPS, discounted at 15%). |
| Base Case \$1 | 4x 2010e EPS of \$0.15 discounted at 15% | Margins stabilize in 2009 as both corn and ethanol prices retreat, resulting in crush margins of \$0.54 in 2009 to \$0.66 in 2010. Margin stability allows market to focus on profit-based valuations. We derive our fair value estimate by blending multiple valuation methodologies including DCF (10-year, 12% discount rate) and DCE (4x 2010e EPS, discounted at 15%). |
| Bear Case \$0 | 0.5x replacement cost | Less favorable commodity prices drives downside below our base case estimates. Downside scenario results in valuation slipping to reflect the base asset value of the company. We derive our fair value estimate by primarily using an EV/replacement value method (0.5x replacement cost). Our bear case scenario factors in recent pressure on the industry exemplified by VeraSun's filing for Chapter 11 bankruptcy protection. |

Investment Thesis

- We have a positive view of biofuels long term; however, corn ethanol's challenges point to a poor risk reward profile.
- Business model is similar to that of other ethanol producers albeit at a smaller overall scale.
- Lack of current production and cash flow limits near-term potential.
- Key risks: potential for industry overcapacity resulting in higher corn prices and lower ethanol prices.

Key Value Drivers

- Ethanol prices, which will be dependent upon the underlying level of demand relative to supply.
- Corn prices account for ~55% of BioFuel's cost structure. Ability to manage the spread between ethanol and corn is a key success factor.
- Completion of facilities on time and within budget.

Potential Catalysts

- Positive: Increase in mandated ethanol usage at state level.
- Positive: Ongoing oil supply/security concerns and focus on alternative fuel companies.
- Negative/Positive: Corn harvest. Weather could be a factor, but lower plantings suggest a weaker harvest that may put upward pressure on prices.
- Negative: Industry overcapacity leads to higher corn prices and lower ethanol prices.

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Clean Energy

Exhibit 29

BIOF Quarterly Income Statement

| Income Statement <i>\$US in millions, except per share and as otherwise noted</i> | 2008E | | | | 2009E | | | |
|--|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|
| | 3/08 | 6/08 | 9/08 | 12/08 | 3/09 | 6/09 | 9/09 | 12/09 |
| | Ethanol | \$0.0 | \$0.0 | \$78.3 | \$94.0 | \$118.5 | \$119.0 | \$119.6 |
| By-products | \$0.0 | \$0.3 | \$12.2 | \$15.0 | \$17.8 | \$17.8 | \$17.9 | \$18.6 |
| Other | \$0.0 | \$0.0 | \$0.0 | \$0.9 | \$1.2 | \$1.2 | \$1.2 | \$1.2 |
| Revenue | \$0.0 | \$0.3 | \$90.5 | \$110.0 | \$137.4 | \$138.0 | \$138.8 | \$143.5 |
| Corn cost | \$0.0 | \$0.2 | \$74.4 | \$72.3 | \$87.8 | \$93.8 | \$91.3 | \$83.2 |
| Natural gas cost | \$0.0 | \$0.0 | \$11.6 | \$10.3 | \$12.4 | \$12.6 | \$13.1 | \$13.1 |
| Transportation | \$0.0 | \$0.0 | \$5.6 | \$7.8 | \$9.1 | \$9.1 | \$9.1 | \$9.1 |
| Other operating expenses | \$0.0 | \$0.0 | \$12.1 | \$19.6 | \$20.7 | \$20.7 | \$20.7 | \$20.7 |
| COGS | \$0.0 | \$0.3 | \$103.8 | \$109.9 | \$130.1 | \$136.3 | \$134.2 | \$126.1 |
| Gross profit | \$0.0 | \$0.0 | (\$13.2) | \$0.1 | \$7.3 | \$1.7 | \$4.5 | \$17.4 |
| SG&A | \$4.1 | \$8.4 | \$3.8 | \$5.2 | \$6.2 | \$6.2 | \$6.2 | \$6.2 |
| Total operating expenses | \$4.1 | \$8.4 | \$3.8 | \$5.2 | \$6.2 | \$6.2 | \$6.2 | \$6.2 |
| EBITDA (GAAP) | (\$4.0) | (\$8.3) | (\$14.7) | \$2.2 | \$8.1 | \$2.5 | \$5.3 | \$18.1 |
| EBITDA (non-GAAP) | (\$3.8) | (\$8.0) | (\$14.7) | \$2.5 | \$8.4 | \$2.8 | \$5.6 | \$18.5 |
| DD&A | (\$0.1) | (\$0.1) | (\$2.3) | (\$7.3) | (\$6.9) | (\$6.9) | (\$6.9) | (\$6.9) |
| EBIT | (\$4.1) | (\$8.4) | (\$17.0) | (\$5.1) | \$1.2 | (\$4.4) | (\$1.6) | \$11.2 |
| Interest income | \$0.5 | \$0.3 | \$0.1 | \$0.0 | \$0.0 | \$0.1 | \$0.1 | \$0.1 |
| Interest expense | \$0.0 | \$0.0 | (\$1.6) | (\$1.8) | (\$4.0) | (\$5.5) | (\$6.1) | (\$6.1) |
| Other expense | \$0.0 | \$10.4 | (\$52.1) | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Beneficial conversion charge | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Minority interest | \$1.8 | (\$1.4) | \$37.5 | \$3.7 | \$1.5 | \$5.3 | \$4.1 | (\$2.7) |
| EBT | (\$1.8) | \$0.9 | (\$33.1) | (\$3.2) | (\$1.3) | (\$4.6) | (\$3.5) | \$2.5 |
| Extraordinary items | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| EBT (excl. extraordinary) | (\$1.8) | \$0.9 | (\$33.1) | (\$3.2) | (\$1.3) | (\$4.6) | (\$3.5) | \$2.5 |
| Income tax, reported | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | (\$0.9) |
| Tax on extraordinary items | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Income tax, net of extraordinary | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | (\$0.9) |
| Net Income (Reported) | (\$1.8) | \$0.9 | (\$33.1) | (\$3.2) | (\$1.3) | (\$4.6) | (\$3.5) | \$1.6 |
| Net Income (GAAP) | (\$1.8) | \$0.9 | (\$33.1) | (\$3.2) | (\$1.3) | (\$4.6) | (\$3.5) | \$1.6 |
| Net Income (non-GAAP) | (\$1.6) | \$1.1 | (\$33.1) | (\$3.0) | (\$1.1) | (\$4.4) | (\$3.3) | \$1.8 |
| Diluted EPS (Reported) | (\$0.12) | \$0.03 | (\$2.18) | (\$0.21) | (\$0.09) | (\$0.30) | (\$0.23) | \$0.05 |
| Diluted EPS (GAAP) | (\$0.12) | \$0.03 | (\$2.18) | (\$0.21) | (\$0.09) | (\$0.30) | (\$0.23) | \$0.05 |
| Diluted EPS (non-GAAP) | (\$0.11) | \$0.04 | (\$2.18) | (\$0.20) | (\$0.07) | (\$0.29) | (\$0.22) | \$0.05 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

December 2, 2008

Clean Energy

Exhibit 30

BIOF Annual Income Statement

| Income Statement | | | | | | | |
|--|-----------------|-----------------|-----------------|-----------------|----------------|----------------|----------------|
| <i>\$US in millions, except per share and as otherwise noted</i> | | | | | | | |
| | 2006 | 2007 | 2008E | 2009E | 2010E | 2011E | 2012E |
| Ethanol | \$0.0 | \$0.0 | \$172.3 | \$480.7 | \$485.9 | \$497.2 | \$508.1 |
| By-products | \$0.0 | \$0.0 | \$27.6 | \$72.1 | \$72.9 | \$69.6 | \$71.1 |
| Other | \$0.0 | \$0.0 | \$0.9 | \$4.8 | \$2.4 | \$2.5 | \$2.5 |
| Revenue | \$0.0 | \$0.0 | \$200.8 | \$557.7 | \$561.3 | \$569.3 | \$581.8 |
| Corn cost | \$0.0 | \$0.0 | \$146.9 | \$356.2 | \$334.5 | \$334.5 | \$334.5 |
| Natural gas cost | \$0.0 | \$0.0 | \$21.9 | \$51.3 | \$52.4 | \$52.4 | \$52.4 |
| Transportation | \$0.0 | \$0.0 | \$13.4 | \$36.5 | \$36.5 | \$36.5 | \$36.5 |
| Other operating expenses | \$0.0 | \$0.0 | \$31.7 | \$82.8 | \$79.4 | \$73.6 | \$73.6 |
| COGS | \$0.0 | \$0.0 | \$213.9 | \$526.7 | \$502.7 | \$496.9 | \$496.9 |
| Gross profit | \$0.0 | \$0.0 | (\$13.1) | \$31.0 | \$58.6 | \$72.3 | \$84.9 |
| SG&A | \$9.4 | \$9.2 | \$21.5 | \$24.6 | \$24.6 | \$24.6 | \$24.6 |
| Total operating expenses | \$9.4 | \$9.2 | \$21.5 | \$24.6 | \$24.6 | \$24.6 | \$24.6 |
| EBITDA (GAAP) | (\$9.4) | (\$9.1) | (\$24.8) | \$33.9 | \$61.5 | \$75.3 | \$87.8 |
| EBITDA (non-GAAP) | (\$9.4) | (\$7.8) | (\$24.0) | \$35.4 | \$63.4 | \$77.5 | \$90.5 |
| DD&A | (\$0.0) | (\$0.1) | (\$9.8) | (\$27.6) | (\$27.6) | (\$27.6) | (\$27.6) |
| EBIT | (\$9.4) | (\$9.2) | (\$34.6) | \$6.3 | \$33.9 | \$47.7 | \$60.2 |
| Interest income | \$0.0 | \$1.8 | \$1.0 | \$0.2 | \$0.4 | \$0.5 | \$0.6 |
| Interest expense | \$0.0 | \$0.0 | (\$3.4) | (\$21.7) | (\$24.3) | (\$24.3) | (\$22.3) |
| Other expense | \$0.0 | \$0.0 | (\$41.7) | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Beneficial conversion charge | \$0.0 | (\$1.3) | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Minority interest | \$6.8 | \$5.0 | \$41.5 | \$8.2 | (\$5.1) | (\$12.5) | (\$20.2) |
| EBT | (\$2.5) | (\$3.7) | (\$37.2) | (\$7.0) | \$4.9 | \$11.4 | \$18.4 |
| Extraordinary items | \$0.0 | (\$1.3) | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| EBT (excl. extraordinaries) | (\$2.5) | (\$2.4) | (\$37.2) | (\$7.0) | \$4.9 | \$11.4 | \$18.4 |
| Income tax, reported | \$0.0 | \$0.0 | \$0.0 | (\$0.9) | (\$2.5) | (\$4.3) | (\$6.9) |
| Tax on extraordinary items | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Income tax, net of extraordinaries | \$0.0 | \$0.0 | \$0.0 | (\$0.9) | (\$2.5) | (\$4.3) | (\$6.9) |
| Net Income (Reported) | (\$2.5) | (\$3.7) | (\$37.2) | (\$7.9) | \$2.4 | \$7.1 | \$11.5 |
| Net Income (GAAP) | (\$2.5) | (\$2.4) | (\$37.2) | (\$7.9) | \$2.4 | \$7.1 | \$11.5 |
| Net Income (non-GAAP) | (\$2.5) | (\$1.1) | (\$36.7) | (\$7.0) | \$3.6 | \$8.5 | \$13.2 |
| Diluted EPS (Reported) | (\$0.50) | (\$0.35) | (\$2.44) | (\$0.51) | \$0.10 | \$0.21 | \$0.34 |
| Diluted EPS (GAAP) | (\$0.50) | (\$0.21) | (\$2.44) | (\$0.51) | \$0.10 | \$0.21 | \$0.34 |
| Diluted EPS (non-GAAP) | (\$0.50) | (\$0.09) | (\$2.40) | (\$0.45) | \$0.15 | \$0.26 | \$0.39 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

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Clean Energy

Exhibit 31

BIOF Annual Balance Sheet

| Balance Sheet <i>\$US in millions, except per share and as otherwise noted</i> | Fiscal Year | | | | | | |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | 2006 | 2007 | 2008E | 2009E | 2010E | 2011E | 2012E |
| ASSETS | | | | | | | |
| Cash | \$27.2 | \$56.0 | \$26.2 | \$77.4 | \$100.0 | \$136.8 | \$186.3 |
| Accounts receivable | \$0.0 | \$0.0 | \$17.8 | \$23.2 | \$22.0 | \$22.6 | \$23.1 |
| Inventories | \$0.0 | \$0.0 | \$31.9 | \$31.2 | \$35.0 | \$34.7 | \$34.7 |
| Prepaid expenses and others | \$0.5 | \$0.2 | \$2.4 | \$2.4 | \$2.4 | \$2.4 | \$2.4 |
| TOTAL CURRENT ASSETS | \$27.7 | \$56.2 | \$78.2 | \$134.2 | \$159.4 | \$196.4 | \$246.4 |
| Property, plant and equipment (Net) | \$82.9 | \$276.8 | \$316.4 | \$301.7 | \$286.1 | \$270.5 | \$254.9 |
| Other assets, net of amortization | \$10.9 | \$11.1 | \$12.9 | \$12.9 | \$12.9 | \$12.9 | \$12.9 |
| TOTAL ASSETS | \$121.5 | \$344.1 | \$407.4 | \$448.8 | \$458.4 | \$479.8 | \$514.2 |
| LIABILITIES | | | | | | | |
| Accounts payable | \$17.4 | \$10.4 | \$38.7 | \$44.6 | \$44.8 | \$44.4 | \$44.4 |
| Accrued legal fees | \$1.8 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Notes payable | \$0.0 | \$0.0 | \$13.5 | \$13.5 | \$13.5 | \$13.5 | \$13.5 |
| Other accrued expenses | \$0.6 | \$12.8 | \$18.3 | \$18.3 | \$18.3 | \$18.3 | \$18.3 |
| TOTAL CURRENT LIABILITIES | \$19.8 | \$23.3 | \$70.4 | \$76.3 | \$76.6 | \$76.2 | \$76.2 |
| Long term debt | \$0.0 | \$124.0 | \$221.0 | \$271.0 | \$271.0 | \$271.0 | \$271.0 |
| Other LT liabilities | \$3.0 | \$6.4 | \$5.2 | \$5.2 | \$5.2 | \$5.2 | \$5.2 |
| TOTAL LIABILITIES | \$22.8 | \$153.6 | \$296.7 | \$352.6 | \$352.8 | \$352.4 | \$352.4 |
| Minority interest | \$74.0 | \$68.8 | \$26.9 | \$18.7 | \$23.9 | \$36.3 | \$56.5 |
| STOCKHOLDERS' EQUITY | | | | | | | |
| Common stock | \$0.1 | \$0.3 | \$0.3 | \$0.3 | \$0.3 | \$0.3 | \$0.3 |
| Additional Paid In Capital | \$26.9 | \$128.4 | \$127.3 | \$128.8 | \$130.6 | \$132.9 | \$135.5 |
| Retained earnings (deficit) | (\$2.3) | (\$6.1) | (\$43.3) | (\$51.2) | (\$48.7) | (\$41.6) | (\$30.1) |
| Accumulated other comprehensive income (loss) | \$0.0 | (\$1.0) | (\$0.5) | (\$0.5) | (\$0.5) | (\$0.5) | (\$0.5) |
| TOTAL STOCKHOLDERS' EQUITY | \$24.6 | \$121.7 | \$83.8 | \$77.5 | \$81.7 | \$91.1 | \$105.3 |
| TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY | \$121.5 | \$344.1 | \$407.4 | \$448.8 | \$458.4 | \$479.8 | \$514.2 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

December 2, 2008

Clean Energy

Exhibit 32

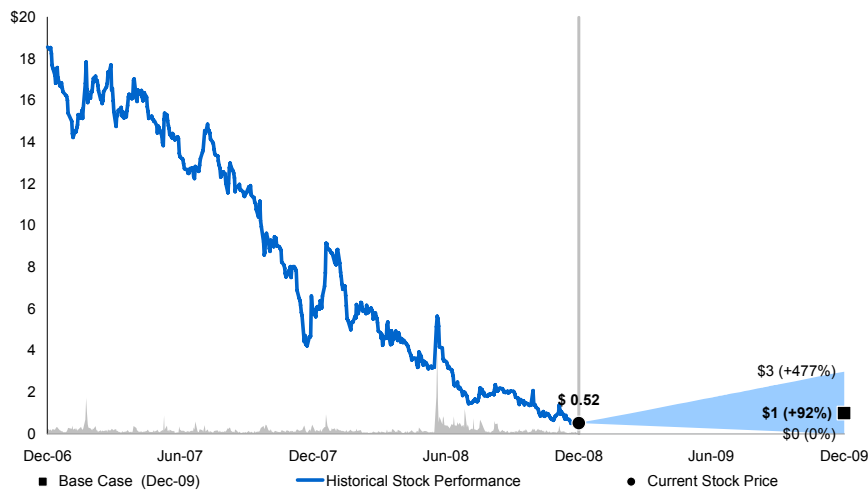
BIOF Annual Cash Flow Statement

| Cash Flow Statement <i>\$US in millions, except per share and as otherwise noted</i> | Fiscal Year | | | | | |
|--|--------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 2007 | 2008E | 2009E | 2010E | 2011E | 2012E |
| Cash flows from operating activities | | | | | | |
| Net income (loss) | (\$3.7) | (\$37.2) | (\$7.9) | \$2.4 | \$7.1 | \$11.5 |
| Depreciation | \$0.1 | \$9.9 | \$27.6 | \$27.6 | \$27.6 | \$27.6 |
| Minority interest | (\$5.0) | (\$41.5) | (\$8.2) | \$5.1 | \$12.5 | \$20.2 |
| Share-based compensation expense | \$1.4 | \$0.9 | \$1.5 | \$1.8 | \$2.2 | \$2.7 |
| Other non-cash items | \$1.3 | \$1.1 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| <u>Changes in working capital</u> | | | | | | |
| Accounts receivable | \$0.0 | (\$17.8) | (\$5.5) | \$1.3 | (\$0.6) | (\$0.5) |
| Inventories | \$0.0 | (\$31.9) | \$0.7 | (\$3.8) | \$0.3 | \$0.0 |
| Prepaid expenses and other current assets and liabilities | \$0.1 | \$2.5 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Accounts payable and accrued expenses | \$0.3 | \$28.2 | \$5.9 | \$0.2 | (\$0.4) | \$0.0 |
| Net cash used in operating activities | (\$5.6) | (\$85.8) | \$14.2 | \$34.6 | \$48.8 | \$61.4 |
| Cash flows from investing activities | | | | | | |
| Other | (\$2.2) | (\$1.8) | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Additions to property, plant and equipment, net | (\$188.5) | (\$44.2) | (\$12.9) | (\$12.0) | (\$12.0) | (\$12.0) |
| Net cash used in investing activities | (\$190.7) | (\$46.0) | (\$12.9) | (\$12.0) | (\$12.0) | (\$12.0) |
| Cash flows from financing activities | | | | | | |
| Debt | \$124.0 | \$105.5 | \$50.0 | \$0.0 | \$0.0 | \$0.0 |
| Proceeds from equity issue | \$101.5 | (\$2.3) | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Other | (\$0.5) | (\$1.2) | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Net cash provided by financing activities | \$225.0 | \$102.0 | \$50.0 | \$0.0 | \$0.0 | \$0.0 |
| Net increase/decrease in cash and equivalents | \$28.7 | (\$29.8) | \$51.2 | \$22.6 | \$36.8 | \$49.4 |
| Cash and equivalents at beginning of period | \$27.2 | \$56.0 | \$26.2 | \$77.4 | \$100.0 | \$136.8 |
| Cash and equivalents at end of period | \$56.0 | \$26.2 | \$77.4 | \$100.0 | \$136.8 | \$186.3 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

Pacific Ethanol (PEIX, \$0.52, Underweight)

Risk-Reward View: Skewed to the Downside in the Near Term



Source: FactSet, Morgan Stanley Research

| | | |
|--------------------------------|---|---|
| Bull Case \$3 | 6x 2011e EPS of \$0.64 discounted at 15% | More favorable commodity prices drives upside above our base case estimates. Margins stabilize in 2009 as both corn and ethanol prices retreat, resulting in crush margins of \$0.36 in 2009 to \$0.58 in 2010. Margin stability allows market to focus on profit-based valuations. We derive our fair value estimate by blending valuation methodologies including DCF (10-year, 12% discount rate) and DCE (6x 2011e EPS discounted at 15%). |
| Base Case \$1 | 6x 2011e EPS of \$0.21 discounted at 15% | Margins stabilize in 2009 as both corn and ethanol prices retreat, resulting in crush margins of \$0.25 in 2009 to \$0.46 in 2010. Margin stability allows market to focus on profit-based valuations. We derive our fair value estimate by blending valuation methodologies including DCF (10-year, 12% discount rate) and DCE (6x 2011e EPS discounted at 15%). |
| Bear Case \$0 | 0.5x replacement cost | Less favorable commodity prices drives downside below our base case estimates. Downside scenario results in valuation slipping to reflect the base asset value of the company. We derive our fair value estimate by primarily using an EV/replacement value method (0.5x replacement cost). Our bear case scenario factors in recent pressure on the industry exemplified by VeraSun's filing for Chapter 11 bankruptcy protection. |

Investment Thesis

- We have a positive view of biofuels long term; however, corn ethanol's challenges point to a poor risk-reward profile.
- Higher corn costs relative to Midwest ethanol producers puts operating model at risk.
- Higher relative capex per gallon for ethanol plants vs. ethanol peers increases business execution risk.
- Potential for liquidity problems due to high cash burn rate.
- Key risks: potential for industry undercapacity resulting in lower corn prices and higher ethanol prices.

Key Value Drivers

- Ethanol prices, which will be dependent upon the underlying level of demand relative to supply.
- Corn prices account for ~75% of Pacific Ethanol's cost structure, more than the peer average. Ability to manage the spread between ethanol and corn is a key success factor.
- Serving mandated markets (California and Oregon) should continue to benefit ethanol pricing.

Potential Catalysts

- Positive: Increase in mandated ethanol usage at state level.
- Positive: Ongoing oil supply/security concerns and focus on alternative fuel companies.
- Negative/Positive: Corn harvest. Weather could be a factor, but lower plantings suggest a weaker harvest that may put upward pressure on prices.
- Negative: Industry overcapacity leads to higher corn prices and lower ethanol prices.

Exhibit 33

PEIX Quarterly Income Statement

| Income Statement <i>\$US in millions, except per share and as otherwise noted</i> | 2008E | | | | 2009E | | | |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 3/08 | 6/08 | 9/08 | 12/08 | 3/09 | 6/09 | 9/09 | 12/09 |
| | Ethanol | \$136.2 | \$170.3 | \$159.3 | \$126.8 | \$172.0 | \$173.3 | \$174.0 |
| By-products | \$12.2 | \$17.6 | \$18.6 | \$10.1 | \$26.2 | \$23.7 | \$23.2 | \$23.6 |
| Other | \$13.2 | \$10.0 | \$6.1 | \$5.1 | \$6.9 | \$6.9 | \$7.0 | \$6.9 |
| Revenue | \$161.5 | \$198.0 | \$184.0 | \$142.0 | \$205.1 | \$203.9 | \$204.1 | \$203.9 |
| Corn cost | \$46.1 | \$81.1 | \$86.3 | \$46.1 | \$99.3 | \$89.9 | \$87.7 | \$89.5 |
| Depreciation | \$4.5 | \$6.3 | \$6.6 | \$5.5 | \$5.6 | \$5.6 | \$5.6 | \$5.6 |
| Other operating and transportation cost | \$95.2 | \$110.2 | \$111.4 | \$94.2 | \$102.5 | \$102.6 | \$102.7 | \$102.8 |
| COGS | \$145.9 | \$197.5 | \$204.3 | \$145.8 | \$207.4 | \$198.1 | \$196.0 | \$197.9 |
| Gross profit | \$15.7 | \$0.4 | (\$20.3) | (\$3.8) | (\$2.3) | \$5.9 | \$8.1 | \$6.0 |
| SG&A | \$9.9 | \$7.7 | \$6.7 | \$5.2 | \$9.8 | \$9.8 | \$9.8 | \$9.8 |
| Goodwill impairment | \$87.0 | \$0.0 | \$40.9 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Total operating expenses | \$96.9 | \$7.7 | \$47.6 | \$5.2 | \$9.8 | \$9.8 | \$9.8 | \$9.8 |
| EBITDA (GAAP) | \$10.3 | (\$1.0) | (\$20.5) | (\$3.6) | (\$6.6) | \$1.6 | \$3.9 | \$1.8 |
| EBITDA (non-GAAP) | \$10.9 | (\$0.4) | (\$19.9) | (\$3.0) | (\$5.9) | \$2.3 | \$4.6 | \$2.6 |
| Net Income (Reported) | (\$35.2) | (\$8.3) | (\$69.2) | (\$13.8) | (\$17.8) | (\$9.9) | (\$8.1) | (\$10.2) |
| Net Income (Recurring) | \$3.5 | (\$8.3) | (\$69.2) | (\$13.8) | (\$17.8) | (\$9.9) | (\$8.1) | (\$10.2) |
| Preferred stock dividends | (\$1.1) | (\$1.4) | (\$0.8) | (\$1.1) | (\$1.1) | (\$1.1) | (\$1.1) | (\$1.1) |
| Deemed dividend on preferred stock | \$0.0 | (\$0.8) | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Net Income (GAAP) | \$2.4 | (\$9.7) | (\$70.0) | (\$14.9) | (\$18.8) | (\$11.0) | (\$9.2) | (\$11.2) |
| Net Income (non-GAAP) | \$2.7 | (\$9.4) | (\$69.6) | (\$14.4) | (\$18.4) | (\$10.5) | (\$8.7) | (\$10.7) |
| Diluted EPS (Reported) | (\$0.90) | (\$0.23) | (\$1.23) | (\$0.26) | (\$0.32) | (\$0.18) | (\$0.15) | (\$0.18) |
| Diluted EPS (GAAP) | \$0.06 | (\$0.21) | (\$1.23) | (\$0.26) | (\$0.32) | (\$0.18) | (\$0.15) | (\$0.18) |
| Diluted EPS (non-GAAP) | \$0.07 | (\$0.20) | (\$1.23) | (\$0.25) | (\$0.31) | (\$0.17) | (\$0.14) | (\$0.17) |
| Weighted average shares outstanding basic | 40.1 | 46.5 | 56.7 | 57.9 | 59.0 | 60.2 | 61.4 | 62.6 |
| Weighted average shares outstanding diluted | 40.1 | 46.5 | 56.7 | 57.9 | 59.0 | 60.2 | 61.4 | 62.6 |
| Margin Analysis | | | | | | | | |
| Gross margin | 9.7% | 0.2% | -11.0% | -2.7% | -1.1% | 2.9% | 4.0% | 3.0% |
| Operating margin | -50.3% | -3.7% | -36.9% | -6.4% | -5.9% | -2.0% | -0.9% | -1.9% |
| Net margin | 1.5% | -4.9% | -38.0% | -10.5% | -9.2% | -5.4% | -4.5% | -5.5% |
| Effective tax rate | 35.0% | 35.0% | 35.0% | 35.0% | 35.0% | 35.0% | 35.0% | 35.0% |
| Expense Analysis | | | | | | | | |
| SG&A (% of rev) | 6.1% | 3.9% | 3.7% | 3.7% | 4.8% | 4.8% | 4.8% | 4.8% |
| Operating expenses (% of rev) | 60.0% | 3.9% | 25.9% | 3.7% | 4.8% | 4.8% | 4.8% | 4.8% |
| Growth Analysis (y/y) | | | | | | | | |
| Revenue | 62.8% | 74.0% | 55.8% | 8.9% | 26.9% | 3.0% | 10.9% | 43.6% |
| Operating expenses | 919.9% | -7.7% | 704.6% | -26.0% | -89.8% | 28.2% | -79.3% | 87.9% |
| Diluted EPS (non-GAAP) | 6.9% | -591.0% | 807.5% | 0.9% | -556.7% | -13.2% | -88.5% | -31.5% |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

December 2, 2008

Clean Energy

Exhibit 34

PEIX Annual Income Statement

| Income Statement <i>\$US in millions, except per share and as otherwise noted</i> | Fiscal Year | | | | | | | |
|--|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|----------------|----------------|
| | 2005 | 2006 | 2007 | 2008E | 2009E | 2010E | 2011E | 2012E |
| Ethanol | \$85.4 | \$228.8 | \$409.0 | \$592.5 | \$692.6 | \$724.6 | \$741.3 | \$743.5 |
| By-products | \$0.0 | \$3.4 | \$27.2 | \$58.6 | \$96.7 | \$90.2 | \$90.2 | \$90.2 |
| Other | \$2.2 | (\$5.8) | \$21.3 | \$34.4 | \$27.7 | \$21.7 | \$22.2 | \$22.3 |
| Revenue | \$87.6 | \$226.4 | \$461.5 | \$685.5 | \$817.0 | \$836.6 | \$853.7 | \$856.0 |
| Corn cost | \$0.0 | \$10.1 | \$100.6 | \$259.6 | \$366.4 | \$341.6 | \$341.6 | \$341.6 |
| Depreciation | \$0.8 | \$4.0 | \$17.5 | \$22.9 | \$22.6 | \$22.6 | \$22.7 | \$22.8 |
| Other operating and transportation cost | \$83.7 | \$187.4 | \$310.5 | \$411.0 | \$410.5 | \$412.2 | \$397.3 | \$382.3 |
| COGS | \$84.4 | \$201.5 | \$428.6 | \$693.5 | \$799.4 | \$776.4 | \$761.6 | \$746.6 |
| Gross profit | \$3.2 | \$24.8 | \$32.9 | (\$8.0) | \$17.6 | \$60.2 | \$92.1 | \$109.3 |
| SG&A | \$12.6 | \$24.6 | \$30.8 | \$29.5 | \$39.4 | \$39.4 | \$39.4 | \$39.4 |
| Goodwill impairment | \$0.0 | \$0.0 | \$0.0 | \$127.9 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Total operating expenses | \$12.6 | \$24.6 | \$30.8 | \$157.5 | \$39.4 | \$39.4 | \$39.4 | \$39.4 |
| EBITDA (GAAP) | (\$8.7) | \$4.2 | \$19.6 | (\$14.7) | \$0.8 | \$43.5 | \$75.5 | \$92.8 |
| EBITDA (non-GAAP) | (\$6.7) | \$10.4 | \$21.8 | (\$12.3) | \$3.6 | \$46.9 | \$79.7 | \$97.9 |
| Net Income (Reported) | (\$10.8) | (\$0.1) | (\$14.4) | (\$126.5) | (\$46.0) | (\$7.3) | \$19.0 | \$31.2 |
| Net Income (Recurring) | (\$10.2) | (\$0.1) | (\$8.9) | (\$87.8) | (\$46.0) | (\$7.3) | \$19.0 | \$31.2 |
| Preferred stock dividends | \$0.0 | (\$3.0) | (\$4.2) | (\$4.3) | (\$4.2) | (\$4.2) | (\$4.2) | (\$4.2) |
| Deemed dividend on preferred stock | \$0.0 | (\$84.0) | (\$0.0) | (\$0.8) | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Net Income (GAAP) | (\$10.2) | (\$3.1) | (\$13.1) | (\$92.2) | (\$50.2) | (\$11.5) | \$14.8 | \$27.0 |
| Net Income (non-GAAP) | (\$8.2) | \$3.1 | (\$10.9) | (\$90.6) | (\$48.3) | (\$9.2) | \$17.5 | \$30.4 |
| Diluted EPS (Reported) | (\$0.42) | (\$2.50) | (\$0.47) | (\$2.62) | (\$0.83) | (\$0.17) | \$0.21 | \$0.35 |
| Diluted EPS (GAAP) | (\$0.40) | (\$0.09) | (\$0.33) | (\$1.83) | (\$0.83) | (\$0.17) | \$0.21 | \$0.35 |
| Diluted EPS (non-GAAP) | (\$0.32) | \$0.09 | (\$0.27) | (\$1.80) | (\$0.79) | (\$0.14) | \$0.24 | \$0.39 |
| Weighted average shares outstanding basic | 25.4 | 34.8 | 39.9 | 50.3 | 60.8 | 65.8 | 71.2 | 77.1 |
| Weighted average shares outstanding diluted | 25.4 | 34.8 | 40.0 | 50.3 | 60.8 | 66.1 | 71.7 | 77.8 |
| Margin Analysis | | | | | | | | |
| Gross margin | 3.6% | 11.0% | 7.1% | -1.2% | 2.2% | 7.2% | 10.8% | 12.8% |
| Operating margin | -10.8% | 0.1% | 0.5% | -24.1% | -2.7% | 2.5% | 6.2% | 8.2% |
| Net margin | -11.7% | -1.4% | -2.8% | -13.4% | -6.1% | -1.4% | 1.7% | 3.2% |
| Effective tax rate | 0.0% | -1.2% | 0.0% | 35.0% | 35.0% | 35.0% | 35.0% | 35.0% |
| Expense Analysis | | | | | | | | |
| SG&A (% of rev) | 14.4% | 10.9% | 6.7% | 4.3% | 4.8% | 4.7% | 4.6% | 4.6% |
| Operating expenses (% of rev) | 14.4% | 10.9% | 6.7% | 23.0% | 4.8% | 4.7% | 4.6% | 4.6% |
| Growth Analysis (y/y) | | | | | | | | |
| Revenue | | 158.4% | 103.9% | 48.5% | 19.2% | 2.4% | 2.0% | 0.3% |
| Operating expenses | | 95.0% | 25.1% | 410.9% | -75.0% | 0.0% | 0.0% | 0.0% |
| Diluted EPS (non-GAAP) | | -128.0% | -401.8% | 563.6% | -55.9% | -82.4% | -274.7% | 59.9% |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

December 2, 2008

Clean Energy

Exhibit 35

PEIX Annual Balance Sheet

| Balance Sheet <i>\$US in millions, except per share and as otherwise noted</i> | Fiscal Year | | | | | | | |
|---|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | 2005 | 2006 | 2007E | 2008E | 2009E | 2010E | 2011E | 2012E |
| ASSETS | | | | | | | | |
| Cash and cash equivalents | \$4.5 | \$44.1 | \$5.7 | \$87.3 | \$27.0 | \$29.1 | \$19.7 | \$55.6 |
| Investments in marketable securities | \$2.8 | \$39.1 | \$19.4 | \$7.5 | \$7.5 | \$7.5 | \$7.5 | \$7.5 |
| Restricted cash | \$0.0 | \$1.6 | \$0.8 | \$12.2 | \$12.2 | \$12.2 | \$12.2 | \$12.2 |
| Accounts receivable, net | \$4.9 | \$29.3 | \$28.0 | \$23.7 | \$54.4 | \$48.5 | \$49.5 | \$49.6 |
| Inventories | \$0.4 | \$7.6 | \$18.5 | \$24.3 | \$41.7 | \$40.9 | \$40.1 | \$39.3 |
| Prepaid expenses and others | \$0.6 | \$1.1 | \$1.5 | \$1.8 | \$1.8 | \$1.8 | \$1.8 | \$1.8 |
| Prepaid inventory | \$1.3 | \$2.0 | \$3.0 | \$2.4 | \$2.4 | \$2.4 | \$2.4 | \$2.4 |
| Other current assets | \$0.2 | \$2.3 | \$5.2 | \$4.1 | \$4.1 | \$4.1 | \$4.1 | \$4.1 |
| TOTAL CURRENT ASSETS | \$14.8 | \$127.0 | \$82.2 | \$163.2 | \$151.0 | \$146.4 | \$137.3 | \$172.5 |
| Property, plant and equipment (Net) | \$23.2 | \$196.2 | \$468.7 | \$534.6 | \$524.1 | \$513.4 | \$502.7 | \$491.9 |
| Restricted cash | \$0.0 | \$24.9 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Deposits and advances | \$0.0 | \$9.0 | \$0.1 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Goodwill | \$2.6 | \$85.3 | \$88.2 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Intangible assets, net | \$7.6 | \$10.2 | \$6.3 | \$5.8 | \$5.8 | \$5.8 | \$5.8 | \$5.8 |
| Debt issuance costs, net | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Other assets | \$0.1 | \$1.3 | \$6.1 | \$9.7 | \$9.7 | \$9.7 | \$9.7 | \$9.7 |
| TOTAL LONG-TERM ASSETS | \$33.4 | \$326.8 | \$569.4 | \$550.1 | \$539.5 | \$528.9 | \$518.2 | \$507.4 |
| TOTAL ASSETS | \$48.2 | \$453.8 | \$651.6 | \$713.2 | \$690.5 | \$675.3 | \$655.4 | \$679.9 |
| LIABILITIES | | | | | | | | |
| Accounts payable and accruals | \$5.2 | \$12.2 | \$83.4 | \$20.1 | \$33.2 | \$32.7 | \$32.1 | \$31.5 |
| Other liabilities - related parties | \$9.1 | \$9.4 | \$0.9 | \$1.2 | \$1.2 | \$1.2 | \$1.2 | \$1.2 |
| Short-term debt | \$0.0 | \$4.1 | \$23.3 | \$47.9 | \$47.9 | \$47.9 | \$47.9 | \$47.9 |
| Other current liabilities | \$3.4 | \$4.8 | \$18.7 | \$10.4 | \$10.4 | \$10.4 | \$10.4 | \$10.4 |
| TOTAL CURRENT LIABILITIES | \$17.7 | \$30.6 | \$126.3 | \$79.6 | \$92.7 | \$92.1 | \$91.5 | \$90.9 |
| Notes payable, net of current portion | \$0.0 | \$29.0 | \$145.0 | \$354.3 | \$372.0 | \$372.0 | \$340.6 | \$340.6 |
| Related party notes payable, net of current portion | \$2.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Deferred tax liability | \$0.0 | \$1.1 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Other liabilities | \$0.0 | \$0.4 | \$2.0 | \$3.5 | \$3.5 | \$3.5 | \$3.5 | \$3.5 |
| TOTAL LIABILITIES | \$19.7 | \$61.0 | \$273.2 | \$437.3 | \$468.2 | \$467.6 | \$435.6 | \$435.0 |
| Non-controlling interest in variable interest entity | \$0.0 | \$94.4 | \$96.1 | \$46.4 | \$40.1 | \$33.5 | \$26.7 | \$19.6 |
| STOCKHOLDERS' EQUITY | | | | | | | | |
| Preferred stock | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Common stock | \$0.0 | \$0.0 | \$0.0 | \$0.1 | \$0.1 | \$0.1 | \$0.1 | \$0.1 |
| Additional Paid In Capital | \$42.1 | \$397.5 | \$402.9 | \$478.9 | \$481.7 | \$485.2 | \$489.4 | \$494.5 |
| Unvested consulting expense | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Accumulated other comprehensive income (loss) | \$0.0 | \$0.5 | (\$2.4) | \$0.5 | \$0.5 | \$0.5 | \$0.5 | \$0.5 |
| Due from stockholders' | (\$0.0) | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Accumulated deficit | (\$13.6) | (\$99.7) | (\$118.3) | (\$249.9) | (\$300.0) | (\$311.5) | (\$296.8) | (\$269.7) |
| TOTAL STOCKHOLDERS' EQUITY | \$28.5 | \$298.4 | \$282.3 | \$229.5 | \$182.2 | \$174.2 | \$193.1 | \$225.3 |
| TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY | \$48.2 | \$453.8 | \$651.6 | \$713.2 | \$690.5 | \$675.3 | \$655.4 | \$679.9 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

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Exhibit 36

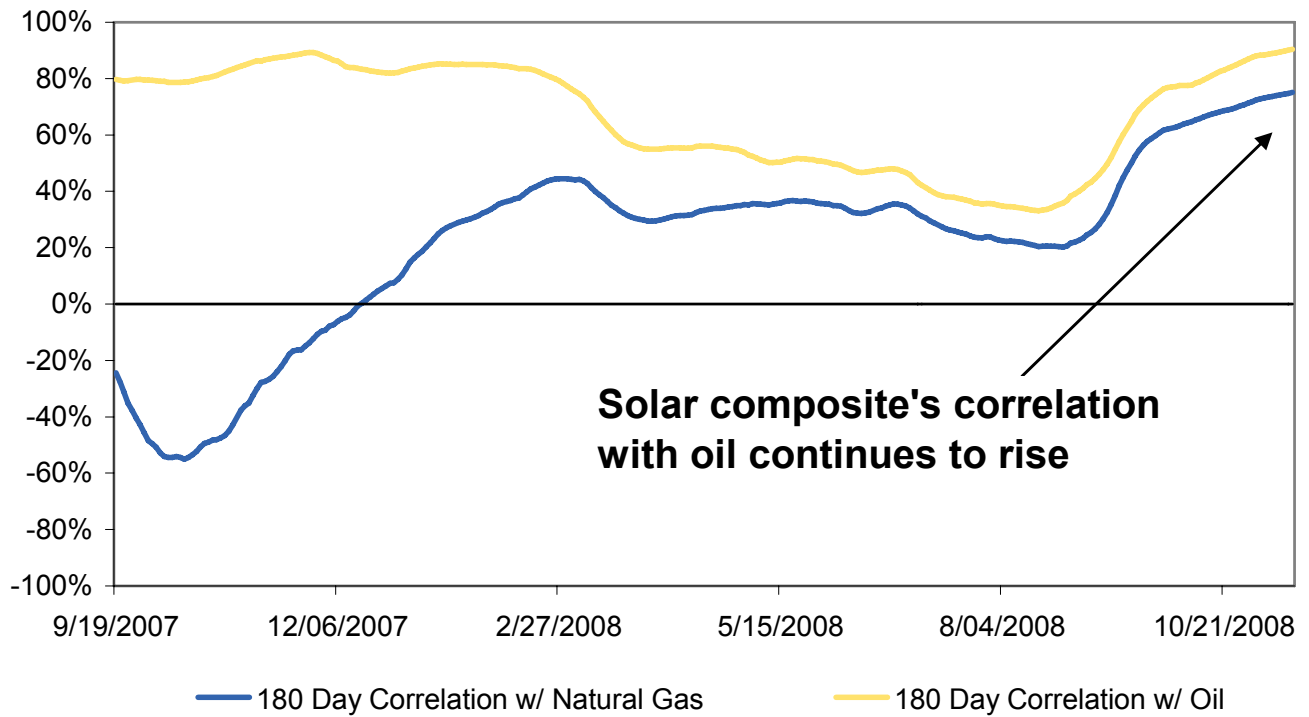
PEIX Annual Cash Flow Statement

| Cash Flow Statement <i>\$US in millions, except per share and as otherwise noted</i> | Fiscal Year | | | | | | | |
|---|-----------------|------------------|------------------|------------------|-----------------|-----------------|-----------------|-----------------|
| | 2005 | 2006 | 2007 | 2008E | 2009E | 2010E | 2011E | 2012E |
| Cash flows from operating activities | | | | | | | | |
| Net income (loss) | (\$10.8) | (\$0.1) | (\$14.4) | (\$126.5) | (\$46.0) | (\$7.3) | \$19.0 | \$31.2 |
| Depreciation and amortization of intangibles | \$0.8 | \$4.0 | \$17.5 | \$22.9 | \$22.6 | \$22.6 | \$22.7 | \$22.8 |
| Other non-cash items | \$4.3 | \$11.7 | \$23.4 | \$98.3 | (\$3.5) | (\$3.1) | (\$2.6) | (\$2.0) |
| <u>Changes in operating assets and liabilities</u> | | | | | | | | |
| Accounts receivable | (\$2.4) | (\$20.9) | \$1.2 | \$4.3 | (\$30.7) | \$5.9 | (\$1.0) | (\$0.1) |
| Inventories | \$0.2 | (\$3.7) | (\$10.9) | (\$5.8) | (\$17.4) | \$0.8 | \$0.8 | \$0.8 |
| Prepaid inventory | (\$1.0) | (\$0.7) | (\$1.0) | (\$2.4) | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Other assets | (\$0.5) | (\$2.6) | (\$0.9) | (\$2.9) | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Accounts payable and accrued expense | \$7.2 | \$2.5 | \$10.3 | (\$64.3) | \$13.1 | (\$0.6) | (\$0.6) | (\$0.6) |
| Related party assets and liabilities | \$5.4 | \$1.7 | (\$8.5) | (\$0.4) | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Net cash used in operating activities | \$3.2 | (\$8.1) | \$16.7 | (\$77.0) | (\$61.9) | \$18.3 | \$38.2 | \$52.1 |
| Cash flows from investing activities | | | | | | | | |
| Other | \$0.0 | (\$67.5) | \$19.4 | \$20.1 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Increase in restricted cash for construction projects & acquisitions | \$0.0 | (\$24.9) | \$24.9 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Additions to property, plant and equipment, net | (\$17.3) | (\$82.5) | (\$210.5) | (\$161.7) | (\$12.0) | (\$12.0) | (\$12.0) | (\$12.0) |
| Net cash used in investing activities | (\$17.3) | (\$174.8) | (\$166.2) | (\$141.6) | (\$12.0) | (\$12.0) | (\$12.0) | (\$12.0) |
| Cash flows from financing activities | | | | | | | | |
| Proceeds from sale of common stock, net | \$18.9 | \$137.6 | (\$0.0) | \$26.7 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Proceeds from sale of preferred stock, net | \$0.0 | \$82.6 | \$0.0 | \$45.5 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Others | (\$1.1) | \$3.3 | (\$8.1) | (\$0.8) | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Proceeds from borrowings-net | \$0.0 | \$0.9 | \$129.0 | \$233.9 | \$17.8 | \$0.0 | (\$31.4) | \$0.0 |
| Preferred share dividend paid | \$0.0 | (\$1.9) | (\$4.2) | (\$4.3) | (\$4.2) | (\$4.2) | (\$4.2) | (\$4.2) |
| Equity dividends | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Dividends paid on non-controlling interest VIE | \$0.0 | \$0.0 | (\$5.6) | (\$0.6) | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Net cash provided by financing activities | \$17.8 | \$222.5 | \$111.1 | \$300.2 | \$13.6 | (\$4.2) | (\$35.6) | (\$4.2) |
| Net increase/decrease in cash and equivalents | \$3.7 | \$39.5 | (\$38.4) | \$81.6 | (\$60.3) | \$2.1 | (\$9.4) | \$35.9 |
| Cash and equivalents at beginning of period | \$0.9 | \$4.5 | \$44.1 | \$5.7 | \$87.3 | \$27.0 | \$29.1 | \$19.7 |
| Cash and equivalents at end of period | \$4.5 | \$44.1 | \$5.7 | \$87.3 | \$27.0 | \$29.1 | \$19.7 | \$55.6 |

Source: Company data, Morgan Stanley Research E = Morgan Stanley Research estimates

Appendix A: Solar Correlation with Crude Oil

Exhibit 37
Solar Stock Composite's Correlation with Oil Continues to Rise



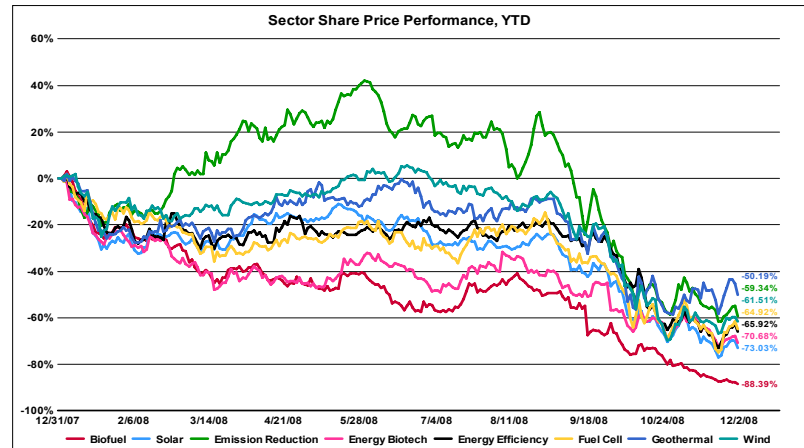
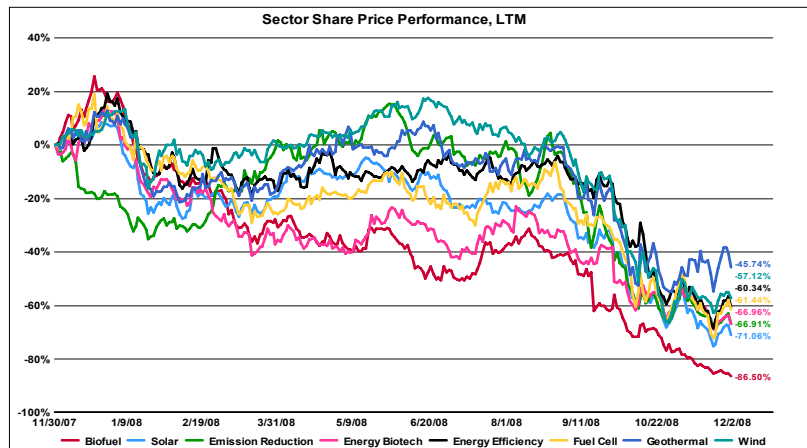
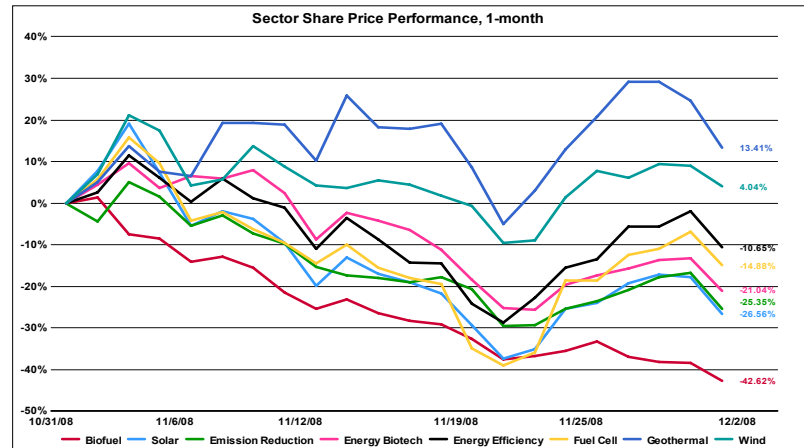
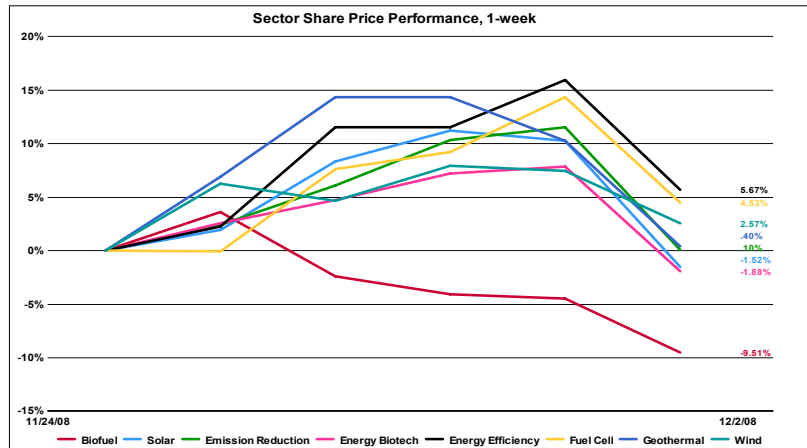
Source: FactSet, Morgan Stanley Research

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Appendix B: Clean Energy Sector Price Performance

Exhibit 38

Clean Energy Price Performance



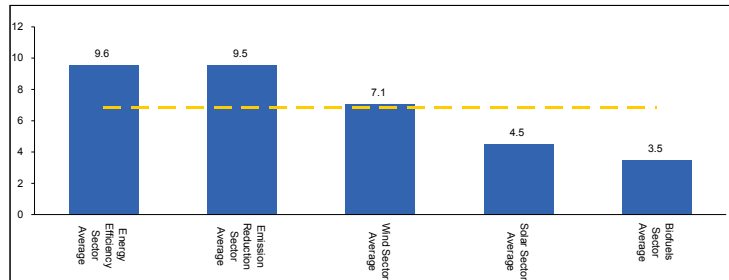
Source: FactSet, Morgan Stanley Research

Appendix C: Clean Energy Sector Trading Multiples

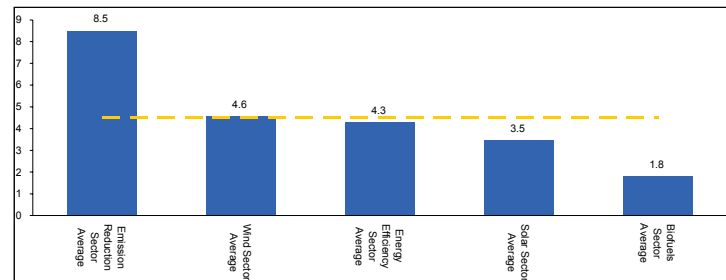
Exhibit 39

Clean Energy Trading Multiples

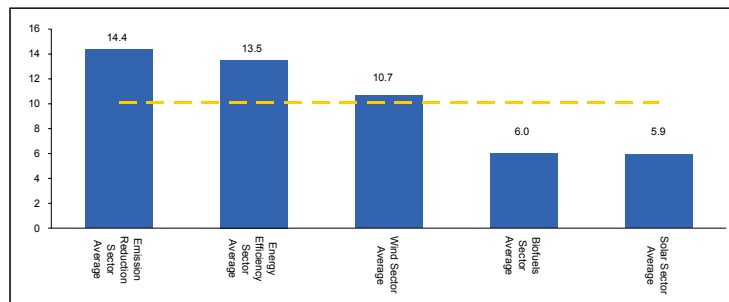
EV/EBITDA 2009e



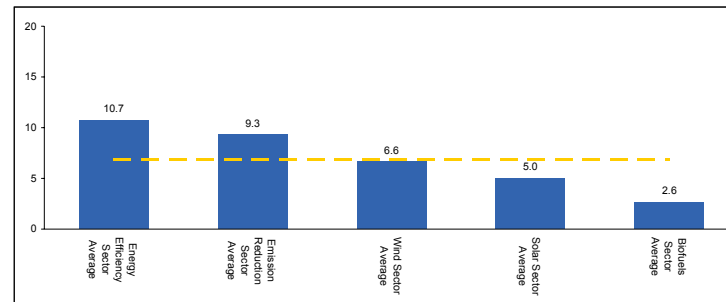
EV/EBITDA 2010e



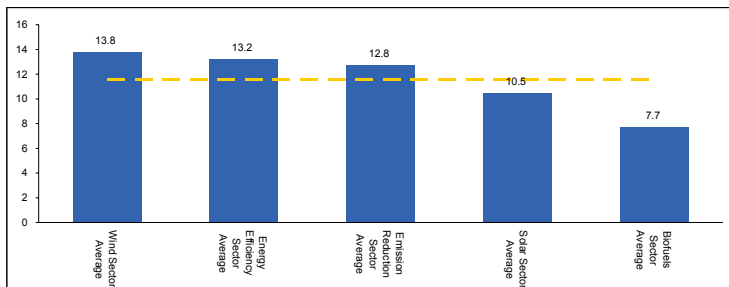
EV/EBIT 2009e



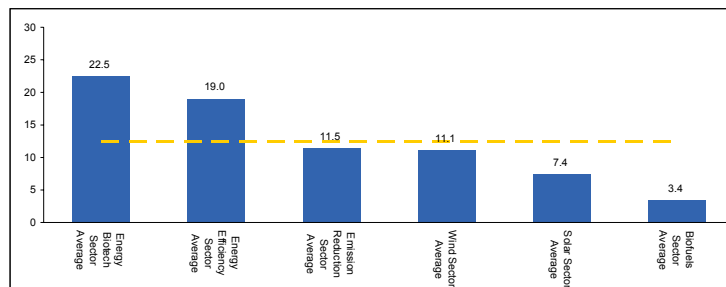
EV/EBIT 2010e



P/E 2009e



P/E 2010e



Source: FactSet, Morgan Stanley Research

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(as of November 30, 2008)

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|--------------------------|-------------------|-------------|----------------------------------|-------------|----------------------|
| | Count | % of Total | Count | Total IBC | % of Rating Category |
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| Equal-weight/Hold | 1037 | 44% | 282 | 45% | 30% |
| Not-Rated/Hold | 31 | 1.3% | 7 | 1.1% | 22.5% |
| Underweight/Sell | 427 | 18% | 90 | 14% | 20% |
| Total | 2,333 | | 633 | | |

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Hong Kong
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Industry Coverage: Clean Energy

| Company (Ticker) | Rating (as of) | Price (12/01/2008) |
|--|-----------------------|---------------------------|
| Nick Allen | | |
| Aventine Renewable Energy Inc. (AVR.N) | U (05/19/2008) | \$.77 |
| BioFuel Energy Corp. (BIOF.O) | U (05/19/2008) | \$.33 |
| EnerNOC (ENOC.O) | E (08/11/2008) | \$5.95 |
| Evergreen Solar Inc (ESLR.O) | E (10/16/2007) | \$2.23 |
| First Solar Inc. (FSLR.O) | O (10/16/2007) | \$110.2 |
| Fuel Tech Inc. (FTEK.O) | E (05/07/2008) | \$7.44 |
| Pacific Ethanol Inc. (PEIX.O) | U (05/19/2008) | \$.52 |
| SunPower Corp (SPWRA.O) | O (10/16/2007) | \$28.62 |

Stock Ratings are subject to change. Please see latest research for each company.